MARICOPA COUNTY

MATERNAL AND CHILD HEALTH

NEEDS ASSESSMENT 2001

PRODUCED BY:
MARICOPA COUNTY DEPARTMENT OF PUBLIC HEALTH

DIVISIONS OF
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Section I. Executive Summary and Healthy People Objectives Table

The mission of the Maricopa County Department of Public Health (MCDPH) is to promote, preserve, and protect the health of the people and communities in Maricopa County. To better understand the health needs of mothers, children, and families in Maricopa County and to identify communities and population groups in need, an annual Needs Assessment of Maternal and Child Health (MCH) is prepared. Existing county resources fund the production of a detailed Needs Assessment. The County Perinatal Block Grant (CPBG) received from the Arizona Department of Health Services (ADHS) supports the printing and dissemination of the Needs Assessment.

At the request of the South Phoenix, Maryvale, and Garfield neighborhoods, all located in the city of Phoenix, the 2001 Maternal and Child Health Needs Assessment is an analysis of these three geographic areas, as well as an update of Maricopa County data. For a full assessment of Maricopa County MCH data, please refer to the 2000 Maricopa County MCH Needs Assessment, located on the worldwide web at "http://www.maricopa.gov/public_health/epi.asp." This year's, 2001 MCH Needs Assessment and the supplemental data tables are also located on the same website.

The South Phoenix, Maryvale, and Garfield communities have developed a level of collaboration among individuals, neighborhood groups, and agencies that is making it possible to implement community interventions that can potentially impact reproductive outcomes. The intent of this Needs Assessment is to provide the information that will guide coalition and community members, elected officials, government agencies, and other decision makers in policy and program development and in the deployment and allocation of resources to support community interventions. The areas of focus in each of the three areas include demographic information, an overview of birth statistics, infant mortality, low birthweight and preterm births, prenatal care, teenage pregnancy and substance use.

In an effort to improve the health of the South Phoenix community and eliminate health disparities, MCDPH initiated the Pregnancy Risk Assessment Monitoring System (PRAMS) and applied the Perinatal Periods of Risk (PPOR) approach for the investigation of infant mortality. PRAMS is a surveillance system developed by the Centers for Disease Control and Prevention (CDC) that surveys women who have recently delivered a baby. The PPOR approach, developed by the World Health Organization (WHO), is a means of identifying, for a community, the points in time during the prenatal period when interventions would be most effective in improving birth outcomes and infant health.

KEY FINDINGS:
MARICOPA COUNTY

- The population of Maricopa County grew 7.4% to a population of 3,072,149 between 1999 and 2000[1,2].
- In 2000, there were 54,471 live births in Maricopa County, a 5.7% increase over the 51,535 births in 1999.
- Women of Hispanic ethnicity had the highest fertility rate in 1999 (150.5 births/1,000 women 15-44 years of age); countywide, the birth rate was 83.2.

- Infant mortality in Maricopa County during 1999 was higher than both the state and national rates, at 7.3 infant deaths per 1,000 live births (Arizona, 6.8; United States, 7.1) [3,4,5]. This represents 374 infant deaths for 1999 in Maricopa County.
- Teen fertility rates in the state for the years 1997 to 1999 were revised in May 2001[6,7], reflecting a much less dramatic decrease in teen birth rate for the state than previously reported.
- Maricopa County's teen fertility rate remains higher than both the U.S. and Arizona's teen fertility rate (MC, 79.3 teen births per 1,000 females under the age of 20; Arizona, 75.0; U.S. 1997 data, 52.3) [6,8].

KEY FINDINGS:
SOUTH PHOENIX

- There were 6,571 births to South Phoenix residents in 1999, an increase of 6.8% from the previous year. This represents 12.75% of all county births in 1999.
- The majority of women delivering in South Phoenix during 1999 had less than a twelfth grade education (59.9%) compared with 29.8% countywide.
- AHCCCS paid for the largest proportion (68.2%) of the births in South Phoenix during 1999, followed by private insurance (21%). The opposite was true in Maricopa County; the largest payor was private insurance (53.8%), followed by AHCCCS (39.7%).
- Unintended pregnancies accounted for approximately 50% of the births in the South Phoenix PRAMS pilot. Of the unintended pregnancies, approximately 39% were mistimed (wanted but not at that time) and 11% were unwanted (not wanted at any time).
- Approximately 10% of women surveyed indicated that they experienced some form of physical abuse during or around the time of pregnancy, with 8.8% experiencing abuse before pregnancy and 5.1% during the pregnancy (PRAMS).
- Infant mortality rates in South Phoenix rose from 9.5 deaths per 1,000 live births in 1996 (59 deaths) and 6.5 in 1998 (40 deaths) to 10.65 in 1999 (70 deaths). The deaths in 1999 represent 19% of the 374 infant deaths in Maricopa County during 1999.
- Approximately 40% of the infant deaths in South Phoenix were post-neonatal (28 to 365 days of age). This proportion is higher than county and national averages where about 1/3 of infant deaths occur in the post-neonatal period.
- The total feto-infant mortality rate for South Phoenix was 11.5 whereas it was 6.5 for the reference group (Maricopa County white women who delivered at 20 or more years of age and had more than a twelfth grade education).
- According to the Perinatal Periods of Risk analysis, the largest contributors to excess feto-infant mortality in South Phoenix were factors related to prematurity and maternal health.
- Among African Americans, infant health factors were the greatest contributors to feto-infant mortality in South Phoenix.
- Low birth weight (< 2500 grams) and preterm births (< 37 weeks) both were approximately one percent higher in South Phoenix than countywide during 1999.
- According to the Adequacy of Prenatal Care Utilization Index (APNCU) [9], 28% of the women delivering in South Phoenix during 1999 had inadequate prenatal care utilization, compared to 14.6% in the county as a whole.

- The most frequent reason (18.8%) cited among South Phoenix residents for not receiving prenatal care as early as desired was a lack of money or insurance (PRAMS).
- Approximately 30% of the births to women 15-17 years of age were intended, while approximately 40% of the births to women 18-19 were intended.

KEY FINDINGS:
MARYVALE NEIGHBORHOOD

- In 1999, there were 3,781 births in Maryvale, an increase of 5.4% from 1998. This represented 7.3% of the 51,535 births in Maricopa County in 1999.
- The majority of women delivering in Maryvale during 1999 had less than a twelfth grade education (51%), compared with 29.8% countywide.
- AHCCCS paid for the largest proportion (64.5%) of the births in Maryvale in 1999, followed by private insurance (27.7%). In Maricopa County, the largest payor was private insurance (53.8%), followed by AHCCCS (39.7%).
- Maryvale had a higher infant mortality rate during each of the four years (1996-1999) compared to the county, with a rate of 8.2/1,000 live births in 1999, representing 31 infant deaths.
- Although the overall percent of infant deaths that occurred during the post-neonatal period (28-365 days of age) was only slightly higher in Maryvale (36.5%) than the county (approximately 1/3), post-neonatal deaths represented 52% of the infant deaths for White women and 47% of those to African American women (1996-1999).
- The percentage of low birth weight births in Maryvale decreased from 7.6% in 1998 to 6.9% in 1999, while county-wide, the percent of low birth weight births increased from 6.7% to 7%.
- According to the APNCU Index [9], there was a decrease in the percentage of mothers with less than adequate prenatal care utilization in Maryvale from 1996 (33.3%) to 1999 (28.9%). The 1999 rate, however, was still higher than the rate in Maricopa County (24.8%).
- Women with 12 years education or less were less likely to have utilized adequate prenatal care than those with more than 12 years of education.
- From 1996 to 1999, 21.3% of the births in Maryvale were to teen mothers, whereas 13.7% of the births in Maricopa County were to teen mothers (1999).

KEY FINDINGS:
GARFIELD NEIGHBORHOOD

- There were 534 births in Garfield during 1999 representing just over 1% of the births in Maricopa County. There were 2,184 births in Garfield from 1996 to 1999.
- Garfield consistently had a higher percentage of women with less than 12 years education delivering compared to Maricopa County (Garfield 66.9%, MC 29.8%, 1999).
- Approximately 83% of the births in Garfield from 1996 to 1999 were paid for by AHCCCS, compared with 39.7% countywide (1999).
- There were 5 infant deaths in Garfield in 1999 (an IMR of 9.3/1,000 live births). From 1996 to 1999, there were 19 infant deaths in Garfield, a four year IMR of 8.7.
- Women who had no prenatal care and women who entered prenatal care late in pregnancy had higher infant mortality

rates than women who entered prenatal care during the first trimester of pregnancy did.

- Approximately 53% of the infant deaths in Garfield during 1996-1999 were post-neonatal deaths. This is in contrast to both the county and national statistics where about 1/3 of infant deaths occur in the post-neonatal time period (28-365 days of age).
- Hispanics and African Americans in Garfield had a lower percentage of low birth weight births from 1996 to 1999 (5.6% and 10.3%, respectively) than their counterparts in the county as a whole (6.9% and 12.5%, respectively; 1999 data).
- Whites in Garfield had a higher low birth weight rate (12.9%, 1996-1999) than Whites across all of Maricopa County (6.6%, 1999).
- Maternal age did not seem to affect first trimester prenatal care initiation in Garfield, unlike patterns for the entire county and the United States, where the percentage increases across age groups up to women 34 years and then drops again for older women.
- A larger percentage of women residing in Garfield (5.4%, 1996-1999) than women residing in the county as a whole (1.9%, 1999) did not receive prenatal care prior to delivery.
- Women younger than 18 years of age in Garfield had birth rates almost three times higher than women of the same age did in the county as a whole.
- A lower percentage of teen mothers in Garfield had an age appropriate education level [10] (33%) compared to the county (48%).

KEY RECOMMENDATIONS

1. Implement the Pregnancy Risk Assessment Monitoring System (PRAMS) countywide. PRAMS is a CDC designed surveillance system that collects information about risk factors associated with poor reproductive outcomes. This will help in targeting intervention strategies and developing policy and allocating community resources.
2. Utilize findings from Perinatal Periods of Risk (PPOR) analysis of infant mortality to better match interventions and resource allocation with factors contributing most to infant mortality.
3. Significantly increase community-wide awareness of changes in AHCCCS benefits (i.e., Proposition 204, KidsCare, Premium Sharing), new perinatal substance abuse resources, and other services available. This awareness could potentially be achieved by a community campaign emphasizing the importance of receiving early prenatal care and preconception care. The campaign should specifically target providers, community-based organizations, and other community partners in geographic areas of the county identified as areas of concern.
4. Address the excessive disparities in infant mortality, preterm birth, and low birth weight rates between African Americans and all other racial/ethnic groups through further identification of risk factors, culturally appropriate interventions involving the community, and dedication of resources.
5. Continue with small area geographic analysis of MCH indicators to better understand the problems and to allow quick recognition of trends in Maternal and Child Health indicators. This will facilitate the implementation and evaluation of interventions at the community level.

6. Universal availability and accessibility of health education is imperative in improving maternal and child health indicators.
7. Implement policies and programs to assure the reduction of disparities in access to and utilization of health care (including prenatal and pre-conception care) between ethnic and racial groups, underinsured/uninsured groups, and geographic areas should take place.
8. The education community and the public health community should collaborate to address risk factors preventing completion of high school. One of the strongest determinants of maternal and child health is the educational level of the mother.
9. Target Hispanic and African American communities with culturally appropriate prevention, intervention, and education to address teen birth rates.
10. Public health agencies should take a lead role in addressing domestic violence and physical abuse as a continued and growing threat to the public health.

Comparison of Selected Maternal and Child Health Indicators in Maricopa County, Arizona with Healthy People 2000 and 2010 Objectives

			Maricopa County			Three Geographic Areas			
Indicator[1]	Healthy People 2000 Objectives	Healthy People 2010 Objectives	Year	Statistics	Status	Year	South Phoenix	Garfield Neighborhood	Maryvale Neighborhood
Number of Births	None available	None available	1999	51535		1999	6571	534 (99), 2,184 (96-99)	3781
Number of Deaths (< 1 year of age)	None available	None available	1999	374		1999	70	5 (99) 19 (96-99)	31
Mothers with < 12 Years Education	None available	None available	1999	29.8%		1999	59.9%	73.2%	51.4%
Deliveries paid for by AHCCCS	None available	None available	1999	39.7%		1999	68.2%	79.2%	64.5%
Infant Mortality Rate	7	4.5	1999	7.26	●	1999	● 10.65	● 8.9 (96-99)	● 9.65
Neonatal Mortality Rate	4.5	2.9	1996-1998	4.79	●	1999	● 6.24	● 4.58 (96-99)	● 6.13
Post Neonatal Mortality Rate	2.5	1.5	1996-1998	2.21	●	1999	● 3.8	● 4.12 (96-99)	● 3.17
Sudden Infant Death Syndrome (SIDS)	None available	0.3	1998	0.64	●		NC	NC	NC
Low Birth Weight (<2,500 grams)	5.0%	5.0%	1999	7.03%	●	1999	● 6.4%	● 7.5%	● 6.9%
Very Low Birth Weight (<1,500 grams)	1%	0.9%	1999	1.3%	●	1999	● 1.8%	● 2.6%	● 1.3%
Preterm Births (<37 weeks)	None available	7.6%	1999	10.08%	●	1999	● 11.1%	● 10.9%	● 10.6%
No Prenatal Care	None available	None available	1999	1.9%		1999	4.4%	5.1%	2.5%
PNC Beginning in First Trimester	90%	90%	1999	75.8%	●	1996-1999	● 56.1%	● 50.5%	● 65.6%
Early and Adequate PNC	None available	90%	1999	68.2%	●	1999	● 47.8%	● 43.1%	● 61.2%
Adolescent Pregnancy Among 15-17 year olds[2]	50/1,000	43/1,000	1999	42.58/1,000 (<=17)	*	1999	103.5/1,000 (<=17)	142.5/1,000 (<=17)	87.5/1,000 (<=17)
Neural Tube defects (NTD)[3]	3/10,000	3/10,000	1996-1998	1.53/10,000	●		NC	NC	NC
Early Postpartum Breastfeeding	75%	75%		DNA	DNA	1999-2000	● 76.7%	DNA	DNA
Breastfeeding at 6 months postpartum	50%	50%		DNA	DNA	1999-2000	● 8.3%	DNA	DNA
Breastfeeding at 1 year postpartum	None available	25%		DNA	DNA	1999-2000	● 0.75%	DNA	DNA
Alcohol Abstinence	95%	94%	1999	97.69%	●	1999	● 97.6%	● 98.1%	● 97.5%
Cigarette Abstinence	90%	99%	1999	92.06%	●	1999	● 93.1%	● 93.3%	● 93.1%
Illicit Drugs[4]	100%	100%		DNA	DNA		DNA	DNA	DNA
Fetal Alcohol Syndrome (FAS)	0.12/1,000	Developmental	1996-1998	0.12	●		NC	NC	NC
Homicide	None available	3.0/100,000	1998	8.09/100,000	●		NC	NC	NC
Suicide	10.5/100,000	5.0/100,000	1998	12.7/100,000	●		NC	NC	NC
Unintentional Injury Deaths	29.3/100,000	17.5/100,000	1998	33.9/100,000	●		NC	NC	NC

[1]Unless stated otherwise, rates are per 1,000 live births.
[2]Fertility rates calculated per 1,000 females in specified age group.
[3]NTD rates were calculated from birth certificates, rate per 10,000 live births.
[4]1990 Objective was for abstinence from cocaine and marijuana.
*Incompatible denominator
NC = Not Calculated or insufficient data
DNA = Data Not Available

Status
● HP 2000 objective not met.
● HP 2000 objective met.
If a HP 2000 objective was not available, HP 2010 objectives were used.

Section II. Introduction

The 2001 Maricopa County Maternal and Child Health Needs Assessment updates MCH statistics for Maricopa County as a whole as well as addresses three geographic areas that were identified in previous years' needs assessments as 'pockets of need'. The three geographic areas addressed in this year's needs assessment are South Phoenix, the Maryvale Neighborhood, and the Garfield Neighborhood.

These areas were selected for assessment because of both adverse MCH indicators and existing community based coalitions/partnerships within their boundaries. These partnerships and coalitions make possible the planning and implementation of effective health interventions at the neighborhood level. Through this geographic based Needs Assessment, MCDPH hopes to provide the three communities with the information necessary to allow the communities to have the biggest impact on health disparities within their borders.

Detailed geographic descriptions of each of the three areas are provided in the introduction for each of the areas. Within the three geographic areas, five substantive areas of Maternal and Child Health are assessed:

1) Infant Mortality;
2) Low Birth Weight and Preterm Births;
3) Prenatal Care;
4) Teenage Births;
5) Tobacco and Alcohol Use.

Additionally, a demographic profile, based on data from the 1995 Special Census of Maricopa County [11], and an overview of births for each area are included.

Whenever feasible, comparisons between the geographic areas, Maricopa County, and the Healthy People 2000 (HP 2000) and 2010 (HP 2010) objectives are provided. Healthy People 2000 and Healthy People 2010 are national initiatives that set goals for the nation to achieve by the respective deadlines regarding important health indicators. Healthy People 2010 has two central goals: 1) increasing the quality and years of healthy life and 2) eliminating health disparities [12,13]."

In coming years, the needs assessment will branch out to address other geographic areas within Maricopa County, both as an assessment of the ten defined health status areas in Maricopa County and as an analysis of cities in Maricopa County with a population greater than 100,000. Additionally, an in-depth look at the county as a whole will be conducted on a periodic basis.

Section III. Definitions, Data Sources, Methods, and Acronyms

Race and ethnicity are presented in this needs assessment as a single indicator, including White non-Hispanic (NH), Hispanic/Latino, Black/African American NH, Native American NH, and Asian NH. Demographic data for Maricopa County are the only exception, as 2000 Census Data were used to describe the racial and ethnic breakdown of Maricopa County. Census Data for 2000 available at press-time only provided race information, including both Hispanic and Non-Hispanic ethnicity in each of the races. Persons are classified by race and ethnicity according to how they identify themselves as such to census takers or hospitals, or how their relatives identify them to the funeral director upon their death. "Hispanic" refers to persons who trace their origin or descent to Mexico, Puerto Rico, Cuba, Central America, South America, or other Spanish cultures and can be of any race [14,15].

Birth data in this needs assessment come from the 1996 through 1999 birth cohorts for Maricopa County, Arizona. Birth data presented specific to certain geographic areas were geocoded (using Environmental Systems Research Institute, ArcView GIS Version 3.1 software) by Maricopa County (1996 and 1997 data) or by the Arizona Department of Health Services (ADHS; 1998 and 1999 data). Geocoding for each year was completed with greater than 95% success.

Death certificates were linked with birth certificates for additional infant information. Linked infant death data originated from two sources over the four years. The 1996 through 1998 linked infant death data came from files distributed to Maricopa County by ADHS. These files matched two birth years to one death year. The percent linked was 96.95% for 1996, 94.20% for 1997, and 96.93% for 1998. The linked infant death file for 1999 was prepared by MCDPH by matching resident births in Maricopa County during 1999 to resident infant deaths in Maricopa County during 1999 and 2000 (birth cohort). Discrepancies in infant mortality rates in this publication with previous Needs Assessments are due to the use of linked infant death data for infant mortality rate calculations in the 2001 Needs Assessment.

Data used for comparisons to Arizona were taken from Arizona Department of Health Services, Arizona Health Status and Vital Statistics Reports, 1996 through 1999. Data used for comparisons with the United States were taken from the Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics Reports.

School drop out rates for the geographic areas and the county were calculated from the Arizona Department of Education, Division of Research and Policy web site. South Phoenix and Maryvale drop out rates were calculated from all schools that fell within the geographic boundaries of these areas. Garfield only contained one high school within its geographic border, Summit High School, which is a charter school. Because of this, drop out rates for Garfield were calculated using all schools identified as serving the Garfield neighborhood in the Garfield Community Assessment conducted by students at Arizona State University.

Population data originated either from the Arizona Department of Economic Security or the United States Census Bureau. At the time of preparation of this needs assessment, 2000 United States Census Data were not available by census tract, age, and sex for Maricopa County. Because age and sex are crucial components of the denominator for a majority of the rates used, the 1995 Special Census of Maricopa County was used as the primary source of population data for the geographic areas included in this assessment. Because race and ethnicity data were available from the 2000 Census for Maricopa County, the racial/ethnic population distribution of Maricopa County was presented from 2000 Census Data. This is the only occasion in this document where 2000 census data were used.

Data citing the Pregnancy Risk Assessment Monitoring System (PRAMS) were collected during an ongoing pilot study of PRAMS in Maricopa County (South Phoenix area only). PRAMS is a population-based survey of women who recently delivered a baby. The survey was developed by the Centers for Disease Control and Prevention as a means of identifying risk factors to address infant mortality and low birthweight rates that were no longer declining in the United States. There are currently 32 states participating in PRAMS. Maricopa County is the first local, non-state jurisdiction to undertake PRAMS surveillance.

The first phase of Maricopa County PRAMS was a pilot study of the South Phoenix Health Status Area of Maricopa County. South Phoenix was selected because of existing partnerships with agencies in the South Phoenix area, as well as because it was deemed to be a population that would provide unique challenges for follow-up. To date, a total of 610 mothers who recently delivered were sampled with 266 responding, yielding a 44% response rate. These responses make up an integral component of this year's needs assessment, missing in the past. These responses provide us with insight into maternal behaviors, experiences, and opinions concerning issues of consequence to Maternal and Child Health.

The Perinatal Periods of Risk Approach (PPOR) was conducted in the South Phoenix Health Status Area using birth certificate, death certificate, and fetal death certificate data from women giving birth during the years 1995 through 1998 in the South Phoenix area. The PPOR analysis is an additional source of information about perinatal health. PPOR was developed by the World Health Organization (WHO) as a means of identifying the areas in a community where intervention would provide the largest improvement to infant health. PPOR accomplishes this by 'mapping' the contribution made in stages of the perinatal continuum to the overall feto-infant mortality rate according to the birth of the child or fetus and the age at death. The perinatal continuum is broken up into four key factors associated with fetal and infant development: maternal health and prematurity, maternal care, newborn care, and infant health (see Map of Feto-Infant Mortality by Periods of Risk on next page). By identifying the periods of risk that are contributing the most to the feto-infant mortality rate, intervention efforts can be targeted to provide the best allocation of resources and to have the greatest potential for impacting the feto-infant mortality rate.

Map of Feto-Infant Mortality by Periods of Risk

Birthweight	Age at Death: Fetal Deaths	Neonatal Deaths	Post Neonatal Deaths
500-1499 grams	**Maternal Health and Prematurity**		
1500+ grams	**Maternal Care**	**Newborn Care**	**Infant Health**

References to the Arizona State University (ASU) students' community assessments pertain to course work conducted by students in the Master in Public Health program, in the Community Health Assessment course. Groups of students surveyed community members and providers in the Garfield and Maryvale communities as a way of developing a community based approach to addressing elevated infant mortality rates in the communities.

All data pertaining to the charts and graphs in this document are included in the second volume, the Maricopa County Maternal and Child Health Needs Assessment 2001: Supplemental Data Tables. The supplementary data tables are also located on the worldwide web site, "http://www.maricopa.gov/public_health /epi.asp." At the end of this document, there is a data request form to obtain additional information from the Maricopa County Department of Public Health. Questions pertaining to the data in this Needs Assessment should be directed to Liva Nohre in the Division of Epidemiology and Data Services, 602-506-6826. Questions pertaining to Maricopa County Department of Public Health's maternal and child health programs and services should be directed to Rose Howe in the Division of Community Health Services, 602-372-1441.

Abbreviations Defined

ADHS	Arizona Department of Health Services
AHCCCS	Arizona Health Care Cost Containment System
APNCU	Adequacy of Prenatal Care Utilization
ASU	Arizona State University
AZ	Arizona
CDC	Center for Disease Control
DES	Department of Economic Security
GIS	Geographic Information System
HP 2000	Healthy People 2000
HP 2010	Healthy People 2010
HS	High School
IHS	Indian Health Services
IMR	Infant Mortality Rate
LBW	Low Birth Weight
MC	Maricopa County
MCDPH	Maricopa County Department of Public Health
MCH	Maternal and Child Health
NCHS	National Center for Health Statistics
NH	Non-Hispanic
NMR	Neonatal Mortality Rate
NVSR	National Vital Statistics Report
PNC	Prenatal Care
PNMR	Post-Neonatal Mortality Rate
PPOR	Perinatal Periods of Risk
PRAMS	Pregnancy Risk Assessment Monitoring System
STD	Sexually Transmitted Diseases
U.S.	United States
VLBW	Very Low Birth Weight
WHO	World Health Organization
WIC	Women, Infants, and Children

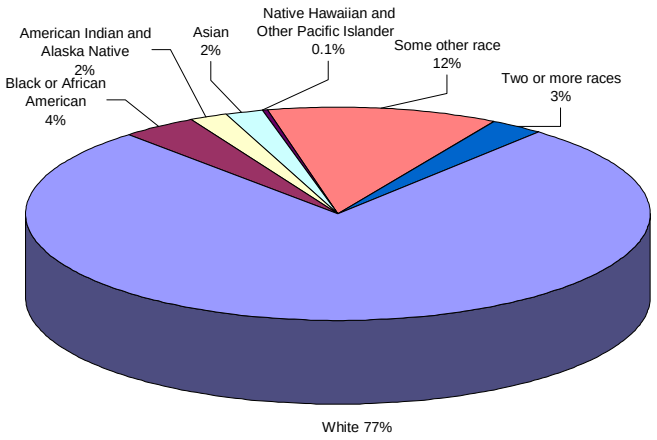
Section IV. Maricopa County Update

INTRODUCTION

Maricopa County birth data were presented in detail in the 2000 Maternal and Child Health Needs Assessment. Because the focus of the 2001 Maternal and Child Health Needs Assessment is on geographic areas of need, the reader is referred to the 2000 Needs Assessment for detailed information on birth statistics for Maricopa County (http://www.maricopa.gov/public_health/epidemiology/MCH.pdf). County specific statistics are also found on the ADHS web site (http://www.hs.state.az.us).The information on Maricopa County should be considered only an update to the 2000 Needs Assessment, and should be used as a point of reference when reviewing the South Phoenix, Maryvale, and Garfield data.

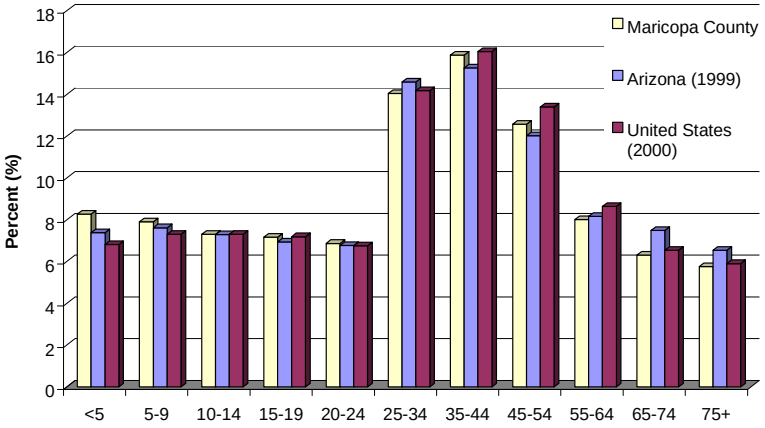
SOCIAL AND DEMOGRAPHIC PROFILE

Population Distribution by Race, Maricopa County, Arizona 2000



The overall population of Maricopa County in 2000 was 3,072,149, a 7.4% growth since 1999 [1,2]. Maricopa County was 77.4% White, with persons indicating “Some other race” comprising the next largest group at 11.9%, followed by Black or African American (3.7%), Two or more races (2.9%), Asian (2.2%), American Indian and Alaskan Native (1.9%) and Native Hawaiian and Other Pacific Islanders (0.1%). Hispanics or Latinos of all races represented 24.9% of the population of Maricopa County [14,15].

Percent Distribution of Population by Age Group, Maricopa County 1999, Arizona 1999, and the United States 2000



Maricopa County’s population by age group in 1999 was similar to that of the United States in 2000, although Maricopa had a higher percentage of persons younger than 10 years of age, and a lower percentage of persons over 45 years of age [14,15, 16].

There were 54,471 live births in Maricopa County in 2000, an increase of 5.7% over the 51,535 births in 1999. The fertility rate in Maricopa County in 1999 was 83.2 live births per 1,000 women of ages 15 to 44.

Table 1. Maricopa County Fertility Rates (Per 1,000 Women of Ages 15-44) 1996-2000

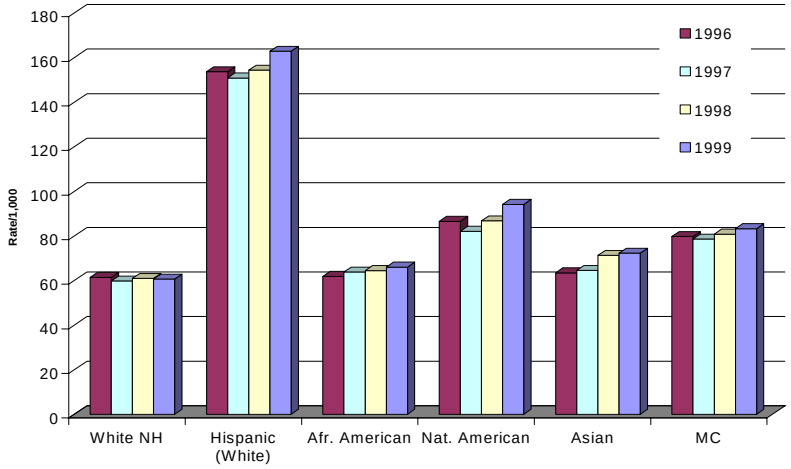
Year	Births	Population of Women 15-44	Birth Rate
1996	46,525	583,271	79.77
1997	47,127	599,462	78.62
1998	49,324	610,419	80.80
1999	51,535	618,713	83.29
2000	54,471	NDA*	NDA*

* No Data Available at press time (NDA)

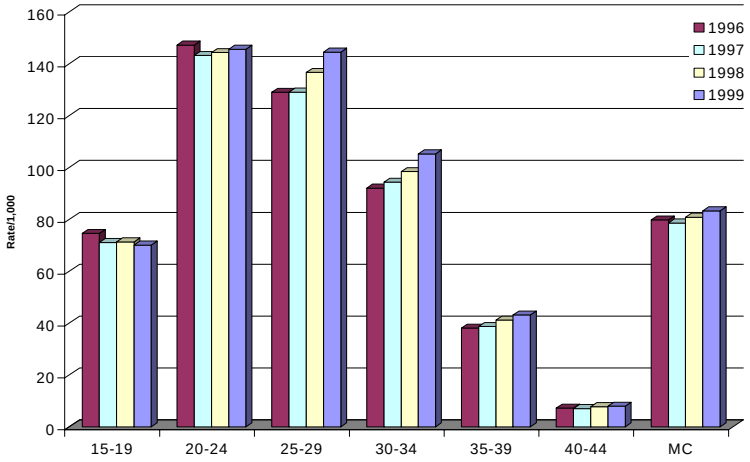
Women of Hispanic ethnicity had the highest fertility rate (150.5 births per 1,000 women 15 to 44 years of age) compared with women of all other racial/ethnic groups. While the fertility rate for White women age 15-44 remained stable across the four-year period, slight increases in fertility rates occurred from 1996 to 1999 for African Americans, Native Americans, and Asians.

Women ages 20 to 24 had the highest fertility rate from 1996 to 1999 compared to other age groups. The next highest rate was for women age 25-29. The fertility rate for women age 15-19 decreased from 1996 to 1999, consistent with national data showing a decrease in births to teenagers [8]. Fertility rates for women age 30 to 39 increased from 1996 to 1999.

Fertility Rate Per 1,000 Women Age 15-44 by Maternal Race/Ethnicity, MC, AZ 1996-1999

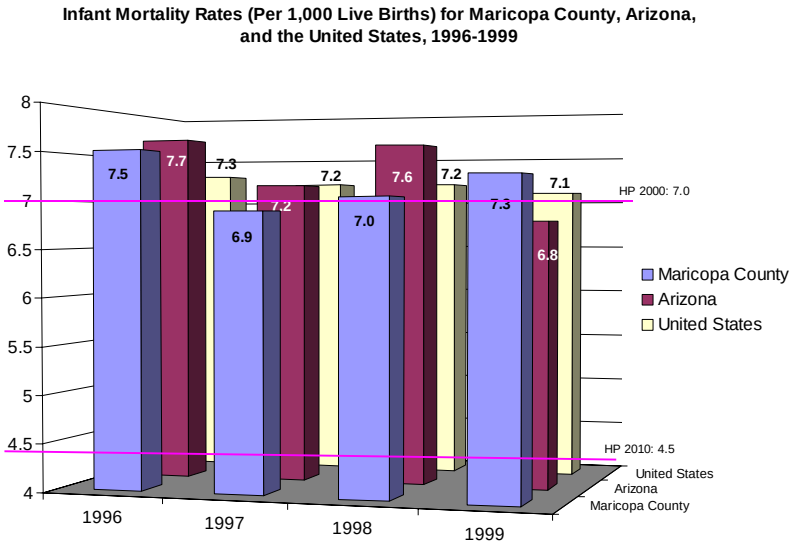


Fertility Rates Per 1,000 Women Age 15-44 by Maternal Age Group, MC, AZ 1996-1999

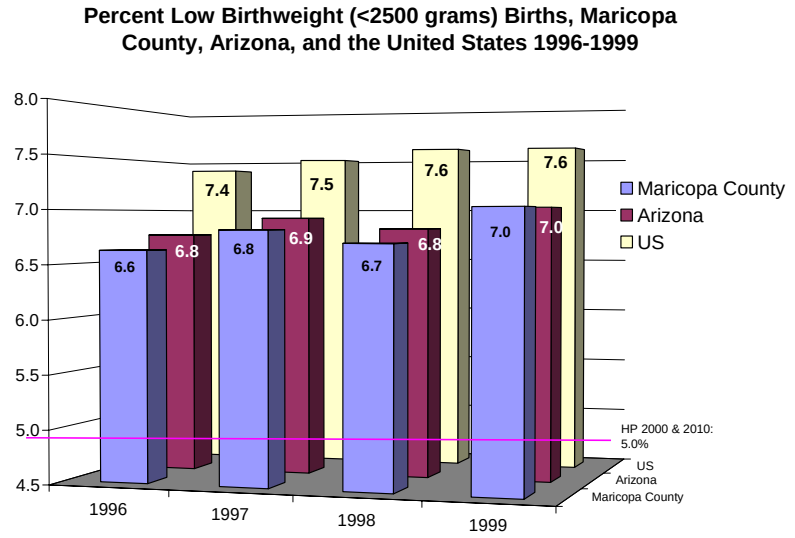


INFANT MORTALITY RATES

In contrast with the previous three years when Maricopa County had a lower infant mortality rate (IMR) than Arizona, the Maricopa County rate was higher than the Arizona rate during 1999. The differences in Maricopa County's IMR from 1997 to 1999 were not statistically significant (p=.05). Statewide, infant mortality rates significantly decreased from 1996 to 1999 [3,4,5].

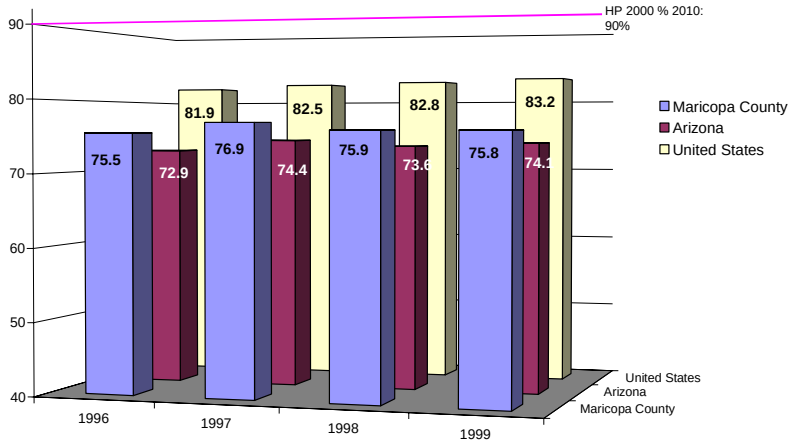


LOW BIRTH WEIGHT AND PRENATAL CARE



The low birth weight rate for Maricopa County was higher than the rate for Arizona during 1999. Both Maricopa County and Arizona fared better than the national average over the past four years [3,5].

Percent Receiving First Trimester Prenatal Care, Maricopa County, Arizona, and the United States, 1996-1999

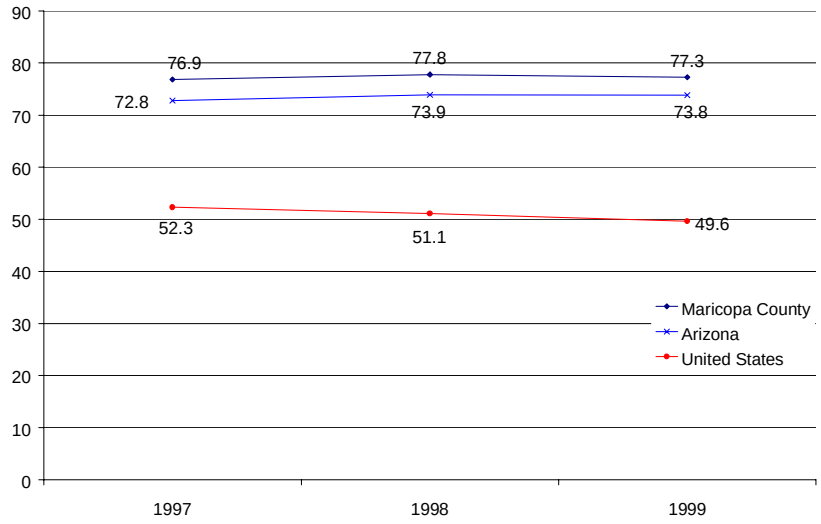


The percent of women receiving prenatal care during the first trimester has remained stable in Maricopa County since 1996. Both Maricopa County and Arizona have been beneath the national average for percent of women initiating prenatal care in the first trimester. Maricopa County has fared better than the state as a whole [3,5].

TEEN BIRTHS

Teen birth rates in Maricopa County remained elevated compared to those for Arizona. Originally published teen birth rates for Arizona for the years 1997 to 1999 were revised in May 2001 due to a data calculation error [6]. The revised Arizona teen birth rates parallel those of Maricopa County much closer than the originally published data [6,7]. Both the Maricopa County and Arizona teen birth rates were elevated compared to those for the United States.

Birth Rates for Women Ages 15-19, Maricopa County, Arizona, and the United States 1996-1999

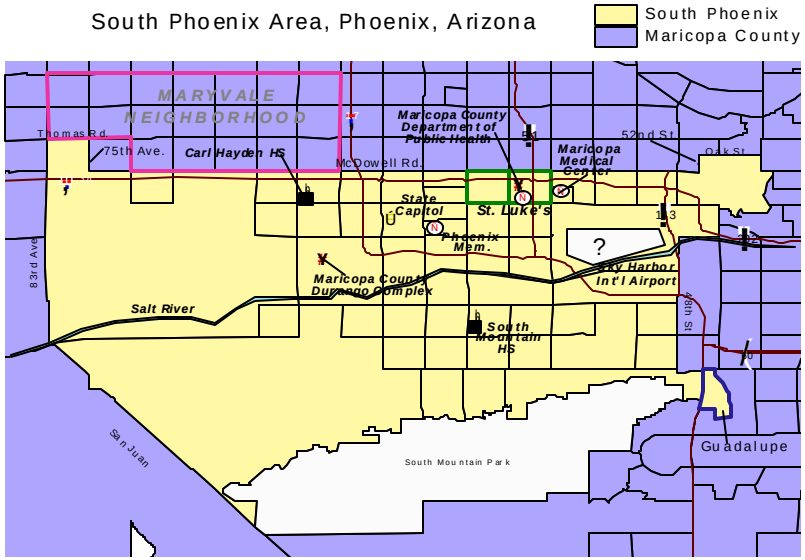


Section V. South Phoenix

INTRODUCTION

South Phoenix is one of ten defined Health Status Areas in Maricopa County. Health Status areas were established as a means to aggregate geographic areas with similar demographic, socioeconomic, and health characteristics for the purpose of health assessments within Maricopa County. The South Phoenix Health Status Area is bordered on the south by South Mountain Park, on the north by McDowell Road, on the east by 48th Street, and on the west by 83rd Avenue (census tracts 111202-111204, 112504-116704). South Phoenix also includes a small area, census tract 320002, comprising the town of Guadalupe. See Appendix A, map 1 for a view of the placement of South Phoenix within the county.

South Phoenix Area, Phoenix, Arizona

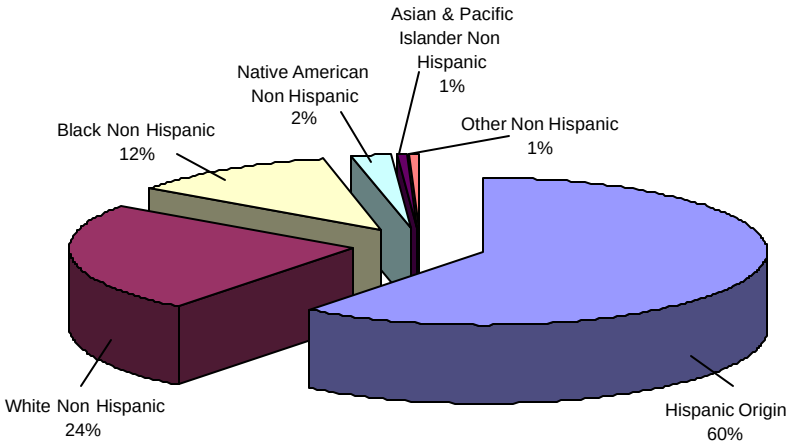


In years past, South Phoenix has had some of the poorest infant health outcomes of any of the Health Status Areas of Maricopa County. As a result, numerous efforts to improve the health of the South Phoenix community have been undertaken by a number of agencies. As part of its assessment functions, the Maricopa County Department of Public Health conducted the pilots for the Maricopa County Pregnancy Risk Assessment Monitoring System (PRAMS) and the Perinatal Periods of Risk analysis (PPOR) in South Phoenix. Descriptions of the PRAMS and PPOR studies are provided in Section III: Definitions, Data Sources, Methods, and Acronyms.

SOCIAL AND DEMOGRAPHIC PROFILE

According to the 1995 Special Census of Maricopa County[11], South Phoenix had a total population of 210,090, which is approximately 8% of the county's 2.5 million residents in 1995. Hispanics made up the largest proportion of the population at 60%. Whites and African Americans made up the next largest groups at 24% and 12%, respectively. See graph on next page. This is in contrast to Maricopa County as a whole, where White Non-Hispanics make up the largest proportion of the population at 72%, followed by Hispanics at 21% and Black/African Americans at 4% (data not shown).

Total Population Distribution by Race/Ethnicity, South Phoenix, 1995 Special Census of Maricopa County



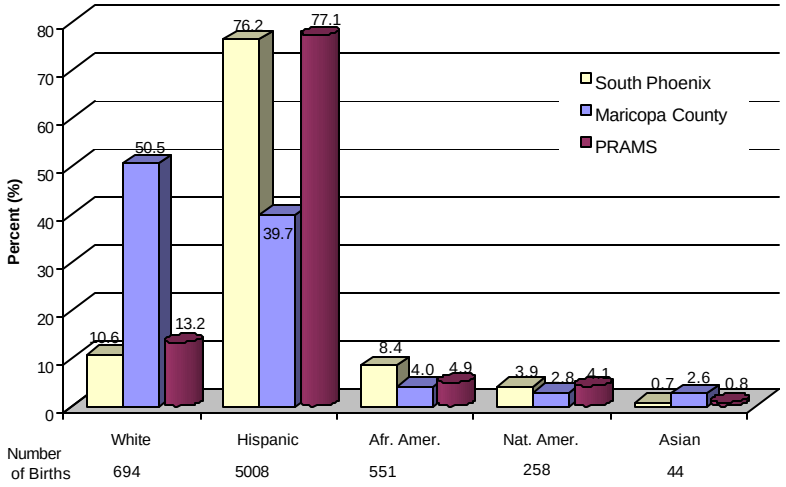
In 1999, there were 6,571 births in the South Phoenix area, a 6.8% increase from the previous year. The births in South Phoenix represented 12.75% of all births in Maricopa County.

Although there were many births in South Phoenix, the number of individuals in any particular category may be small. For example, if women 45 years of age or older in South Phoenix had the same infant mortality rate (IMR) as all other births (e.g., 7/1000) but there were only four live births, there would be no deaths in a group of only four live births. This does not suggest that women 45 years of age and older have an IMR of zero; it means there were not enough births to have at least one death.

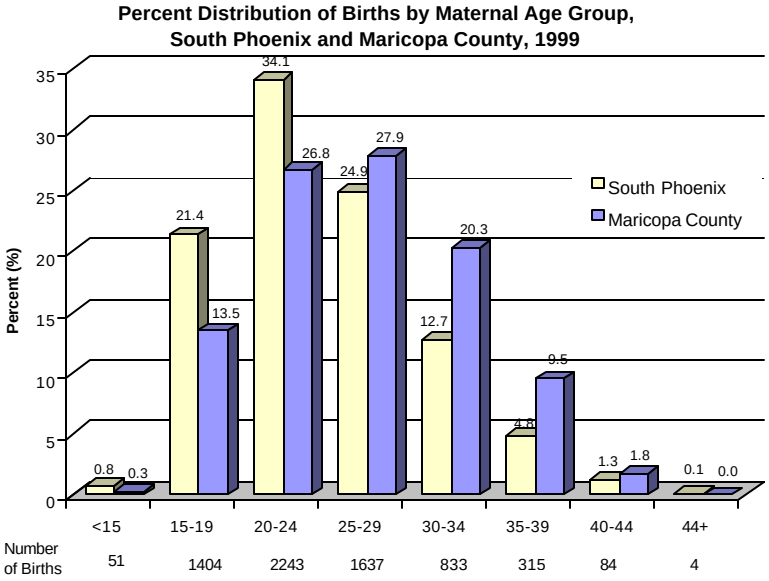
Use caution when examining and interpreting the results because some percentages and/or rates may be based on numbers too small to be meaningful. The numbers used for each graph appear in tables in the "Maricopa County Maternal and Child Health Needs Assessment 2001: Supplemental Data Tables."

Of the births in South Phoenix, 76.2% were to Hispanic mothers, and 10.6% were to Non-Hispanic White mothers. The maternal racial/ethnic distribution of PRAMS respondents was similar to the maternal racial/ethnic distribution in South Phoenix; However, a higher percentage of Whites and a lower percentage of African Americans responded to PRAMS surveys.

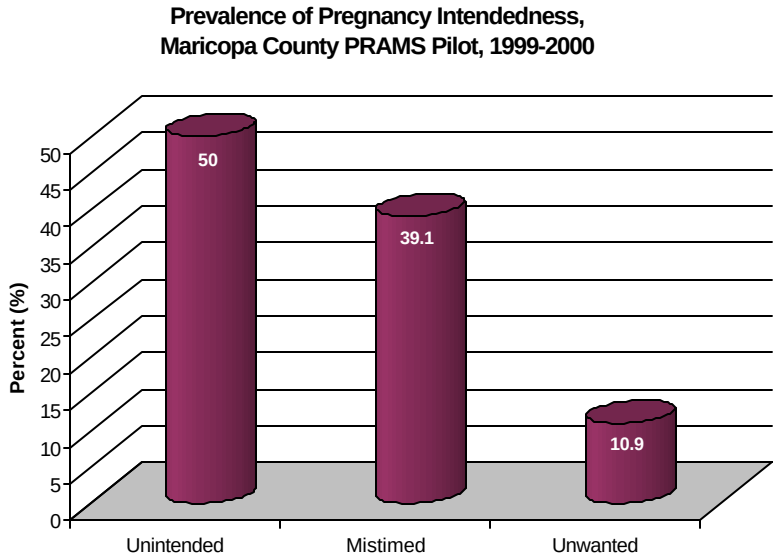
Percent Distribution of Births by Maternal Race/Ethnicity, South Phoenix and Maricopa County, 1999



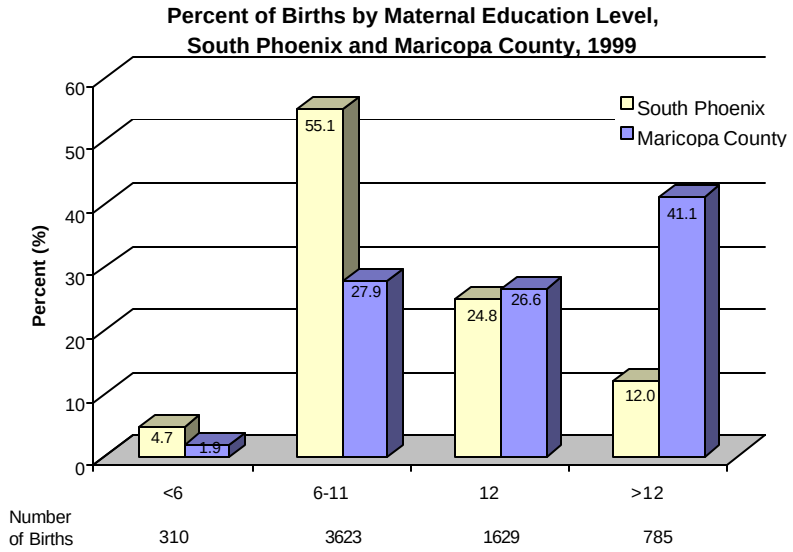
The largest percentage of births in South Phoenix during 1999 were to mothers in the age category 20 to 24 years (34.1%), followed by mothers 25 to 29 years of age (24.9%). Mothers 15 to 19 years of age made up 21.4% of births. Compared to Maricopa County, South Phoenix had a higher percentage of births to younger mothers (less than 25 years of age).



Data from the South Phoenix PRAMS pilot indicate that half of the sampled births in South Phoenix were unintended pregnancies. The two components of an unintended pregnancy include a mistimed pregnancy and an unwanted pregnancy. Mistimed pregnancies are those for which the mother indicated she wanted to be pregnant later (39.1%), while unwanted pregnancies are pregnancies that were not wanted then or at any time in the future (10.9%). Other states conducting PRAMS have reported similar findings for unintended pregnancy [17].



Among mothers delivering during 1999, 59.2% of those in South Phoenix achieved less than 12 years of education compared with 29.8% of those in Maricopa County.

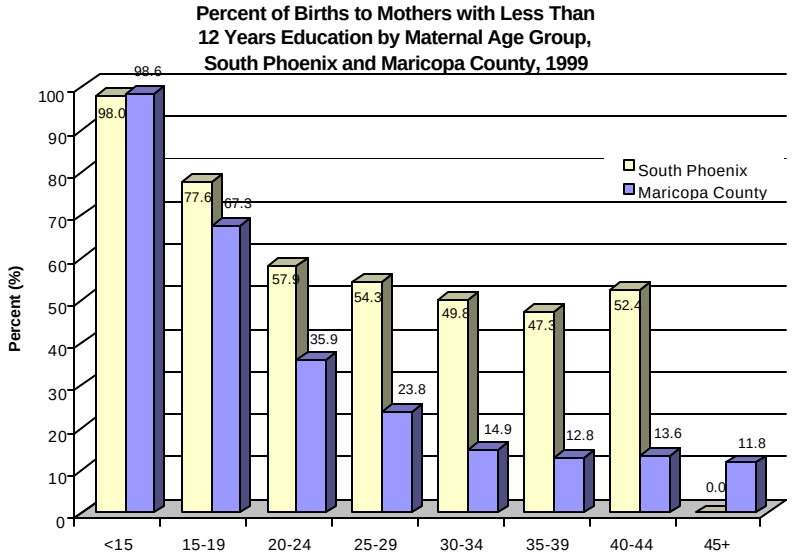


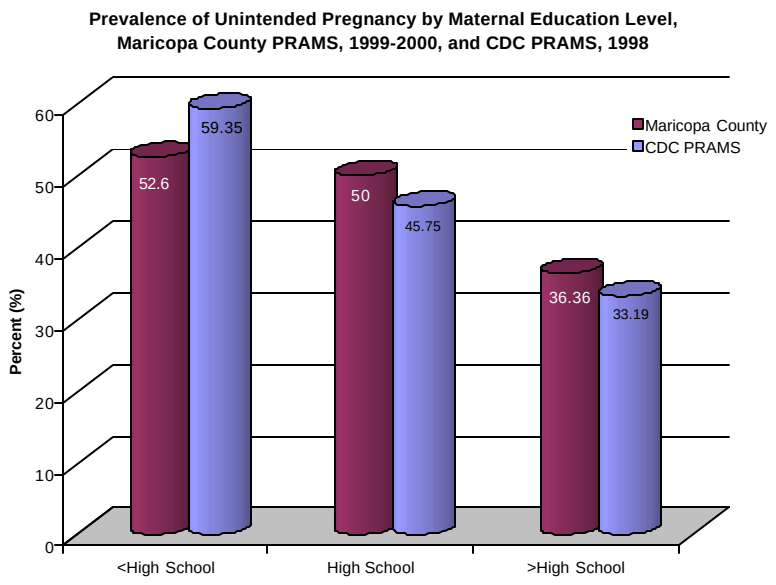
The highest percentage of mothers with less than 12 years of education were of Hispanic origin (67% in 1999), while Asian mothers had the lowest percentage (18.2% in 1999; n=8). The difference between the percent of mothers with less than 12 years of education in South Phoenix and Maricopa County was greatest among Native Americans (21.3 percentage points), followed by Whites (21 percentage points).

Although older mothers were more likely to have graduated from high school, 52.4% of mothers in the 40 to 44 year old age group did not finish high school (n=44).

Percent of Births to Mothers with Less Than 12 Years Education by Maternal Race/Ethnicity, South Phoenix and Maricopa County, 1999

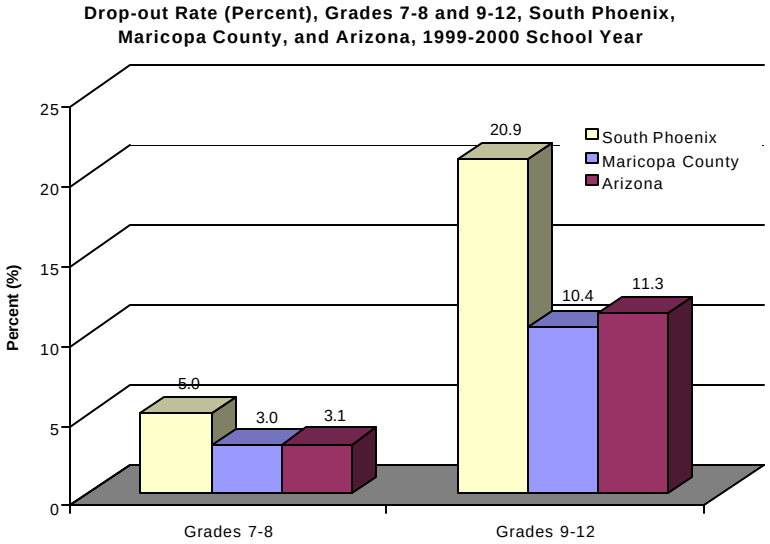
	South Phoenix (%)	Maricopa County (%)	Difference (Percentage Points)
White	31.56	10.61	20.95
Hispanic	66.97	55.86	11.11
Afr. Amer.	38.29	26.53	11.76
Nat. Amer.	54.26	32.94	21.32
Asian	18.18	9.78	8.40
Unknown	3.41	2.49	0.92
Total	59.85	29.80	30.06



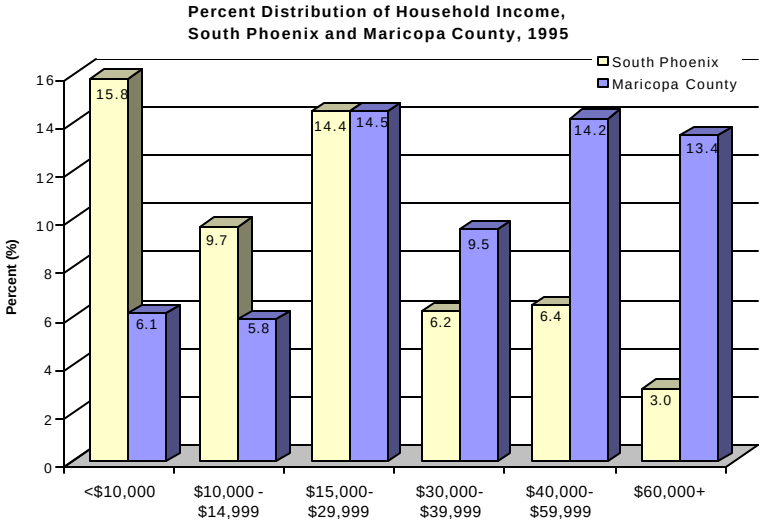


Women with 12 years of education or less were more likely to have had an unintended pregnancy than those with greater than a high school education. This was true both for South Phoenix PRAMS data and PRAMS data from the Centers for Disease Control and Prevention [18].

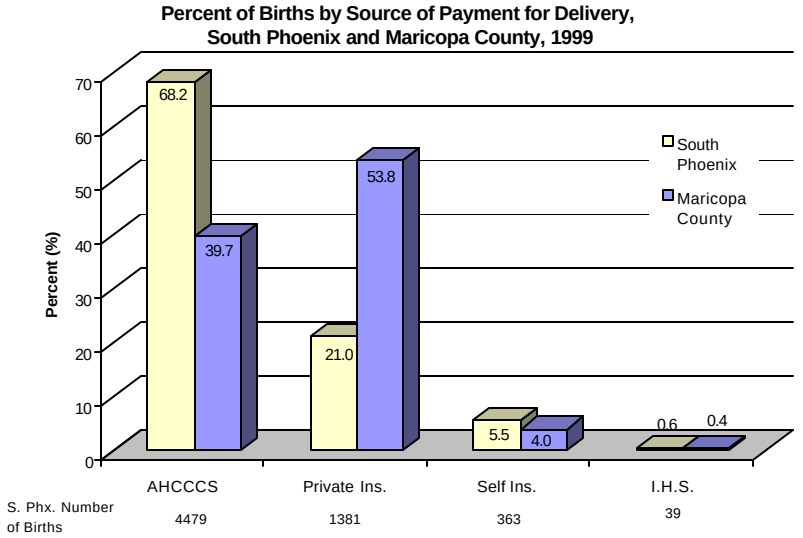
The South Phoenix dropout rate represents the average dropout rate for all schools within the South Phoenix area [19]. South Phoenix had a higher dropout rate than both Maricopa County and Arizona for grades 7 to 8 (5.0%) and grades 9 to 12 (20.9%).

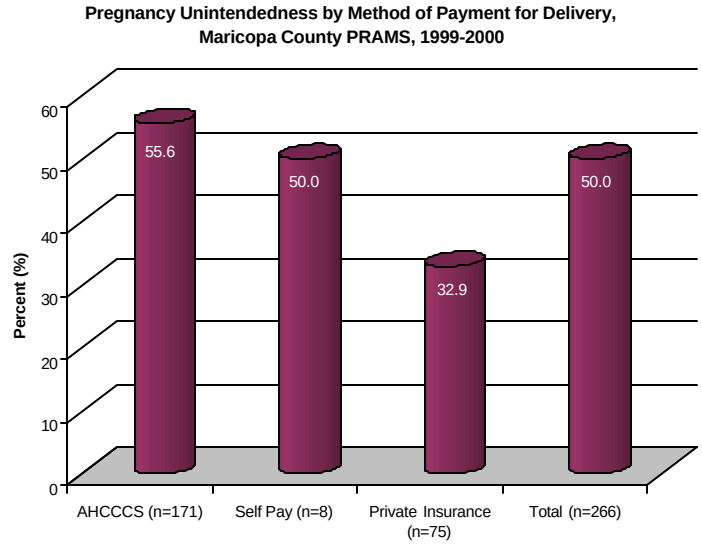


According to the 1995 special census [11], South Phoenix included 61,643 households. Households reporting less than $10,000 annually comprised the single largest income category in South Phoenix (15.8%). Approximately 14% of both South Phoenix and Maricopa County households reported earnings between $15,000 and $29,000 annually. The county as a whole had a larger percentage of households reporting earnings greater than $30,000 when compared to South Phoenix.



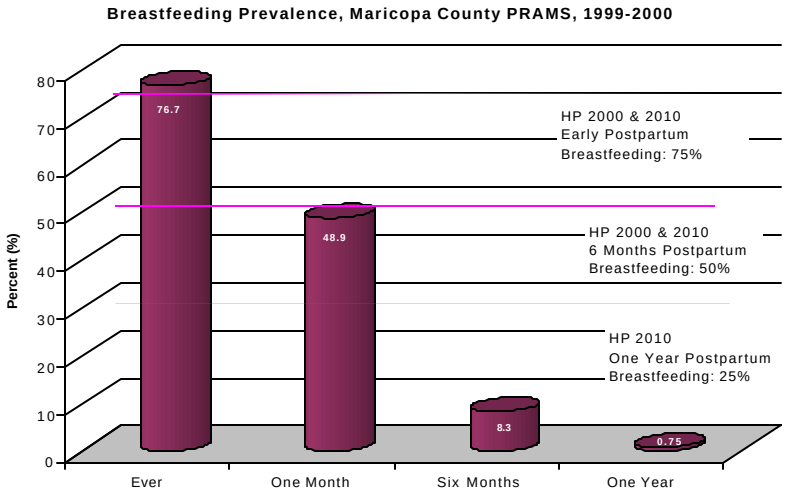
Most births in South Phoenix during 1999 were paid for by the Arizona Health Care Cost Containment System (AHCCCS) (68.2%). During the period 1996 to 1999, there was a decreasing trend in the percentage of births to South Phoenix mothers paid for by AHCCCS. An opposite, increasing, trend was seen in the percentage of births paid for by private insurance and those paid for by self (Data not shown). See Appendix A, Map 4 for the distribution of births paid for by AHCCCS by census tract.

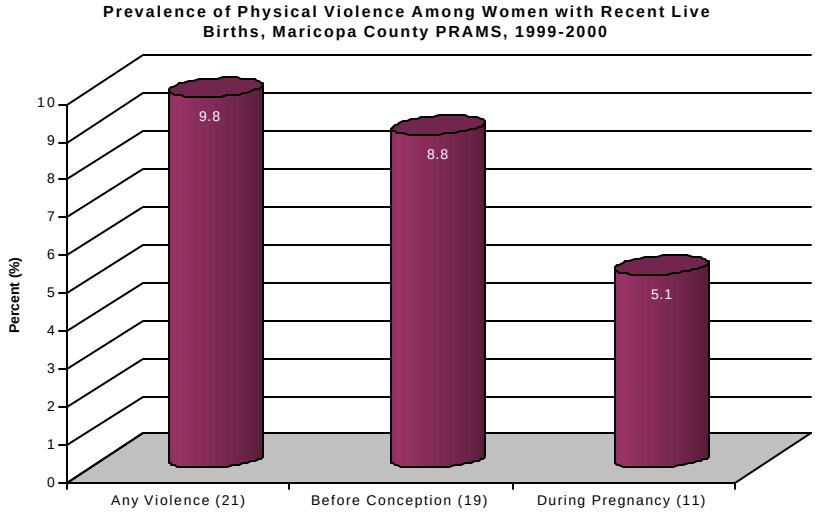




A higher proportion of pregnancies were reported as unintended among females whose deliveries were paid through AHCCCS than among females whose deliveries were paid through any other payment source. See graph on previous page.

South Phoenix is well below the Healthy People objectives [12,13] for breastfeeding prevalence at six months and one year postpartum.



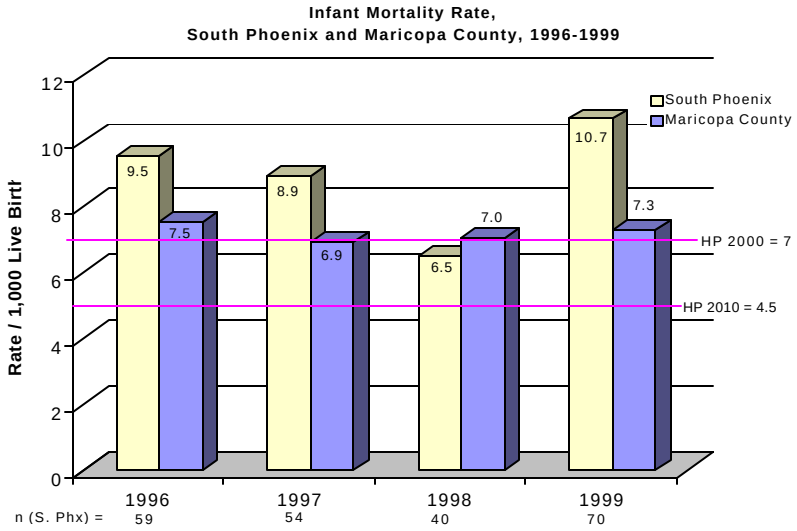


Almost 10% of the women sampled in the PRAMS survey experienced some form of physical violence around or during the time of pregnancy. For approximately 5% of the sample, the violence occurred while the women were pregnant.

Until results from a countywide PRAMS survey are available, findings from the Maricopa County PRAMS pilot cannot be generalized to all women delivering in Maricopa County.

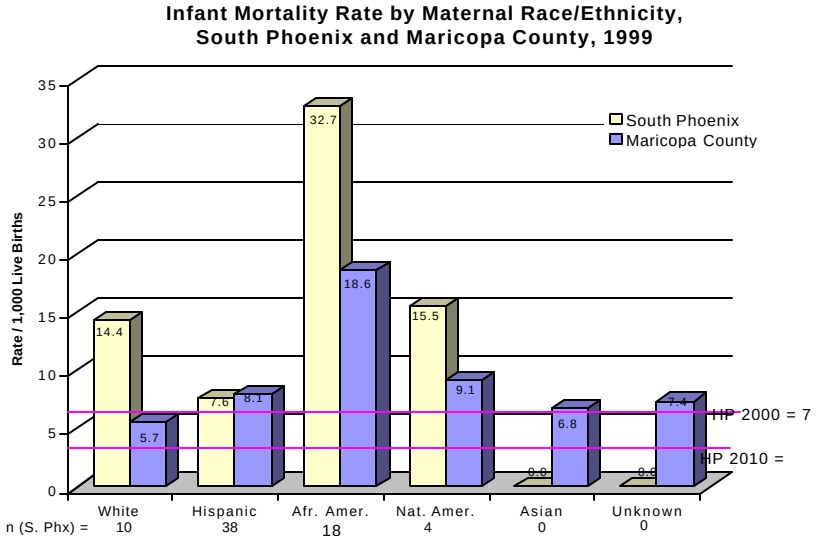
INFANT MORTALITY RATES

There were 223 infant deaths in South Phoenix during the period 1996 to 1999. The average South Phoenix infant mortality rate from 1996 to 1999 was 8.93 annually. The average for this period in Maricopa County was 7.18. Neither the county nor South Phoenix reached the Healthy People 2000 objective of 7 infant deaths per 1,000 live births. A substantial reduction in infant mortality will be necessary to reach the Healthy People 2010 objective of 4.5 infant deaths per 1,000 live births.

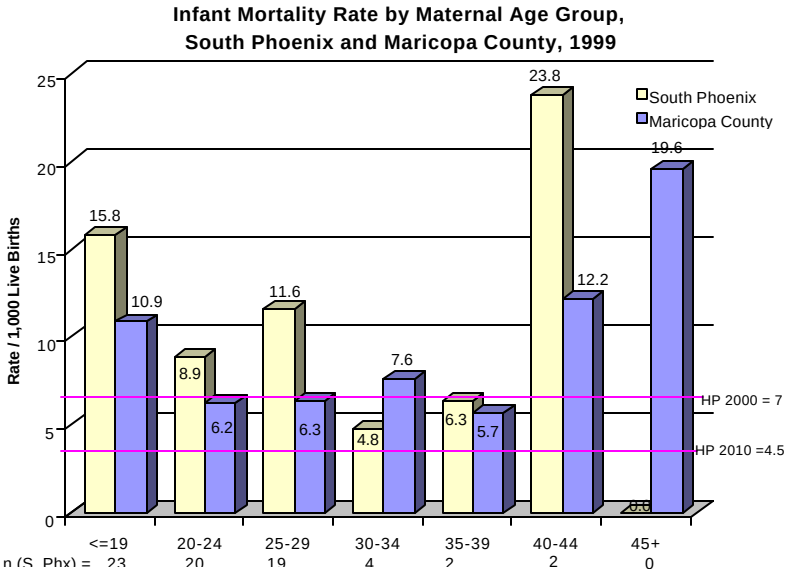


Although there was a declining trend in infant mortality in South Phoenix between 1996 and 1998 with the 1998 IMR of 6.50 reaching the Healthy People 2000 objective, the rate increased to 10.65 in 1999. During the next phase of the PPOR analysis, a detailed examination of the 1999 increase will be carried out. Appendix A, Map 5 shows infant mortality rates in South Phoenix and Maricopa County by census tract.

No ethnic/racial groups of mothers residing in South Phoenix during 1999 reached the Healthy People 2000 objective for infant mortality, excepting Asian mothers but there were few births and no deaths in this group. Non-Hispanic White, African American, and Native American mothers residing in South Phoenix had higher IMRs during 1999 than their counterparts countywide. Hispanic mothers, however, have a lower IMR in South Phoenix than countywide.

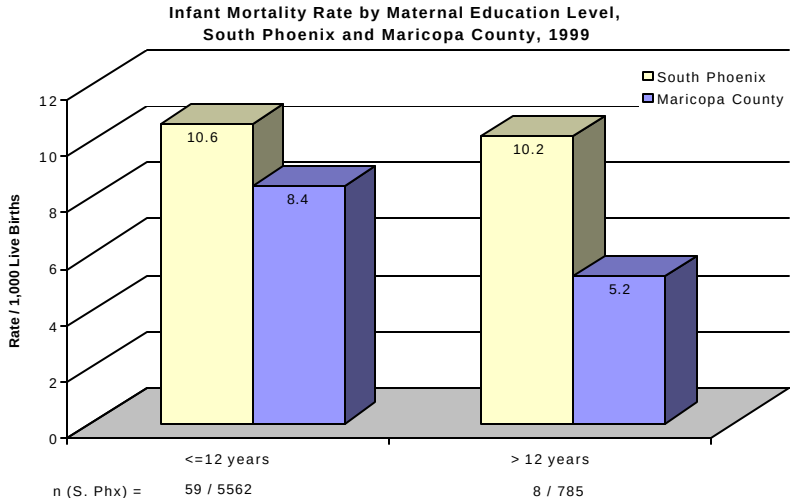


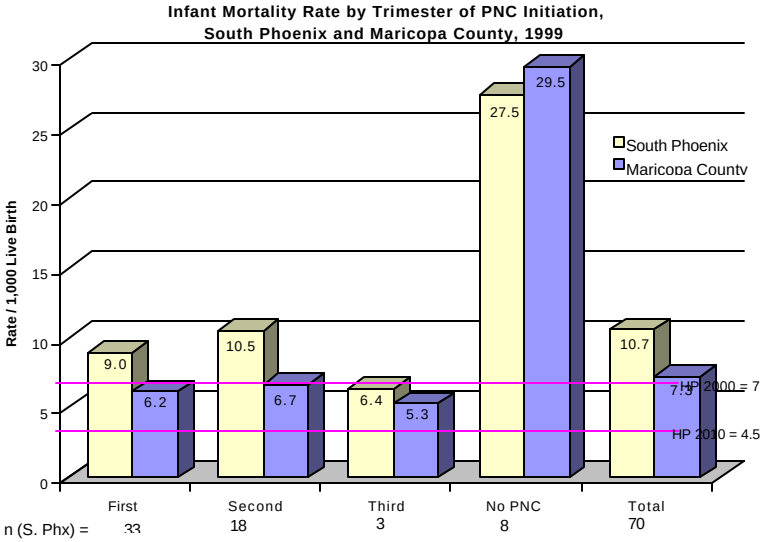
The infant mortality rates were higher in South Phoenix than Maricopa County for all age groups except among women in the 30 to 34 year old age group. Although the IMR of 23.81 among women between the ages of 40 and 44 in South Phoenix appears high, the numbers of births (84) and deaths (2) were small and, thus, statistically unstable.



The South Phoenix 1999 IMR for women with a twelfth grade education or less (10.6) was higher than the Maricopa County comparison (8.4). The IMR for women with more than a high school degree (10.2) was also higher than the county rate (5.2).

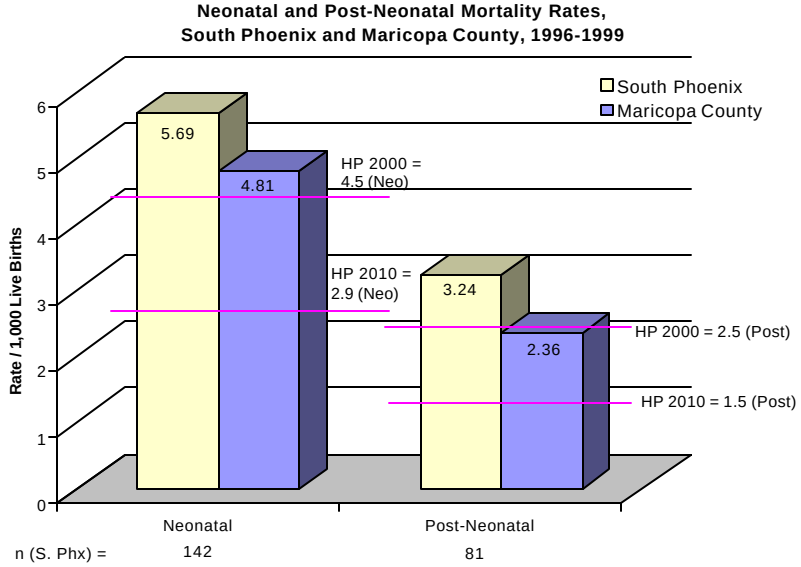
The 1999 IMR in South Phoenix was higher than in Maricopa County for women initiating prenatal care during any trimester of pregnancy. The IMR among women who did not receive prenatal care was high (27.5 per 1,000).

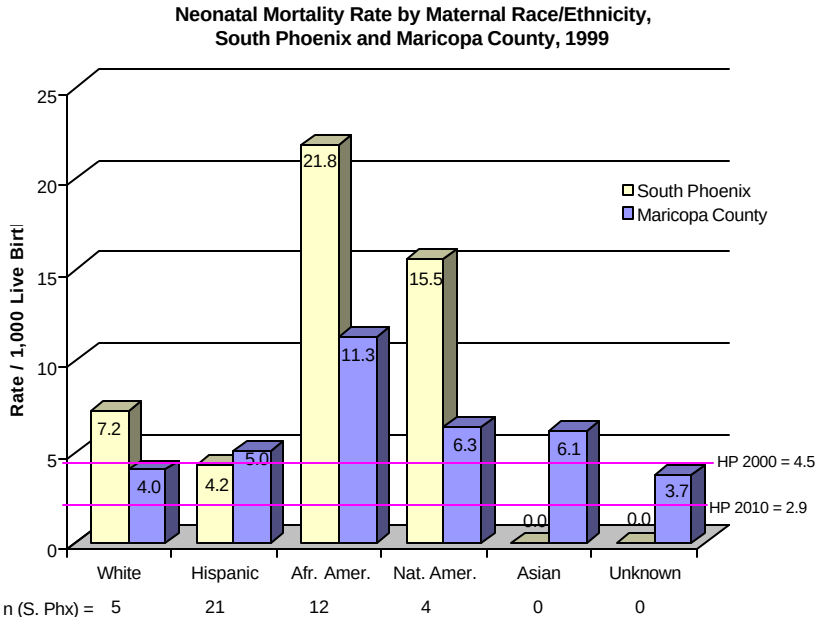




The neonatal mortality rate (NMR; deaths before 28 days of age) from 1996 to 1999 was higher in South Phoenix (5.69) than the county (4.81). South Phoenix reached the Healthy People 2000 objective of less than 4.5 neonatal deaths per 1,000 live births during 1998; however, the objective was not met prior to 1998 or during 1999 (graph not shown).

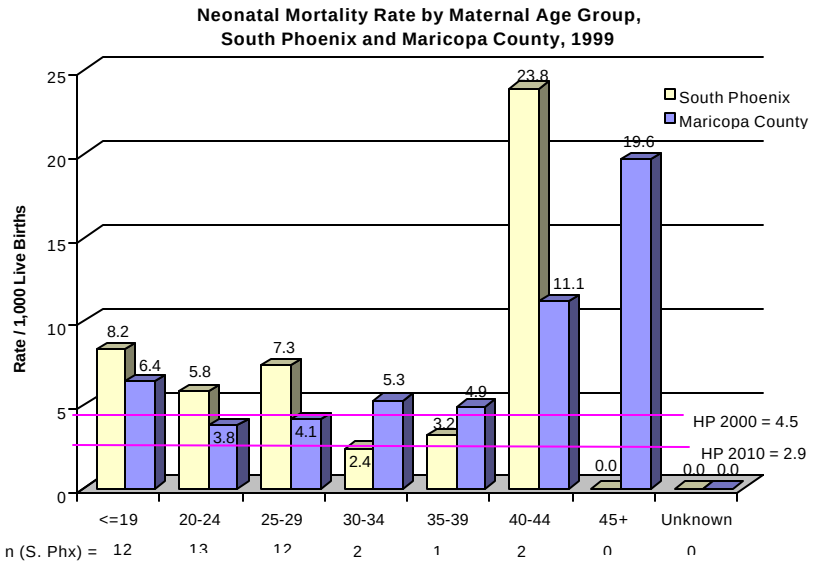
In 1999, about 40% of the infant deaths in South Phoenix were post-neonatal (28 to 365 days old). This proportion is higher than county and national averages where approximately 1/3 of infant deaths are in the post-neonatal period [12]. The post-neonatal mortality rate (PNMR) between 1996 and 1999 was higher in South Phoenix (3.24) than the county (2.36). In South Phoenix, the Healthy People 2000 objective of 2.5 per 1,000 live births was not met during any year (1996-1999). In the county, the Healthy People 2000 objective was met each year (data not shown).





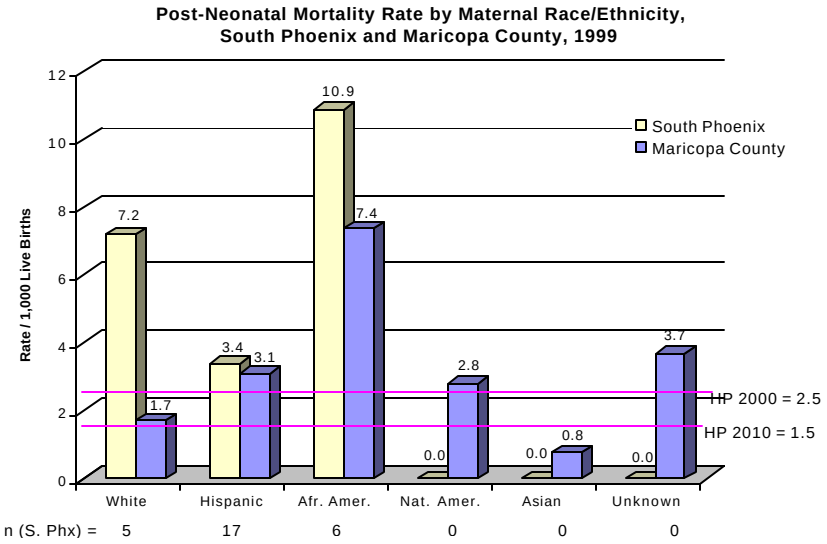
The highest NMRs in South Phoenix were among African Americans (21.8; 12 deaths) and Native Americans (15.5; 4 deaths). Both groups had higher rates in South Phoenix than in the county as a whole.

The lowest NMR for residents of South Phoenix was among Hispanics, reaching the Healthy People 2000 objective. The NMR among Hispanics in South Phoenix was slightly lower than countywide. There were no infant deaths to Asian mothers in South Phoenix during 1999 but there were only 44 births.



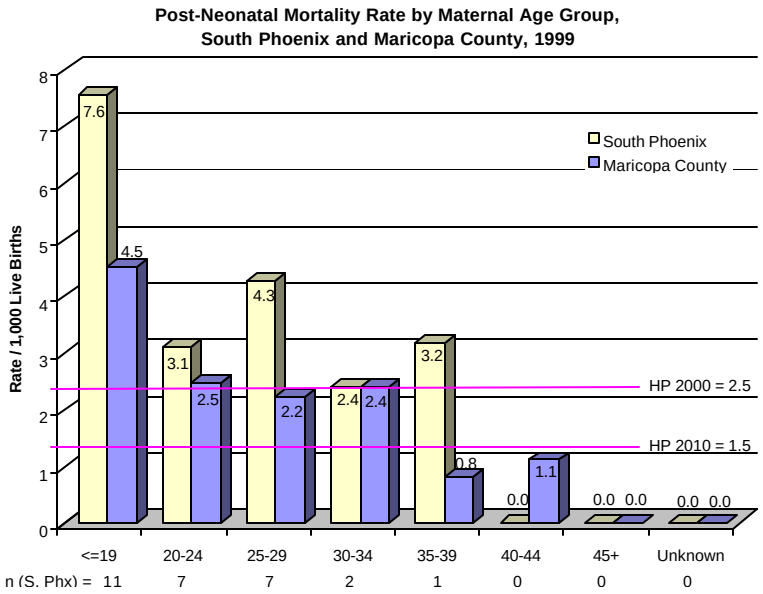
Women 29 years of age and younger who resided in South Phoenix had higher NMR than same aged women countywide. Women 30 to 39 years of age in South Phoenix had lower NMR than women of the same age countywide; However, the numbers are small and the rates unstable for these age groups and for those over age 40.

In South Phoenix, African Americans had a PNMR of 10.9 (6 deaths), which was higher than other racial/ethnic groups in South Phoenix and African Americans countywide (7.36). Non-Hispanic White residents of South Phoenix also had a substantially higher PNMR (7.20; 5 deaths) than those in Maricopa County (1.69).



The PNMR for South Phoenix residents was higher than for Maricopa County residents across all age groups except women aged 40 to 44 (there were no deaths and only 84 births in this age group). The only South Phoenix age group to reach the Healthy People 2000 objective was that of women 30 to 34 years of age.

Teenagers in South Phoenix had a PNMR of 7.56, higher than teenagers in the county (4.52) and other age groups in South Phoenix.

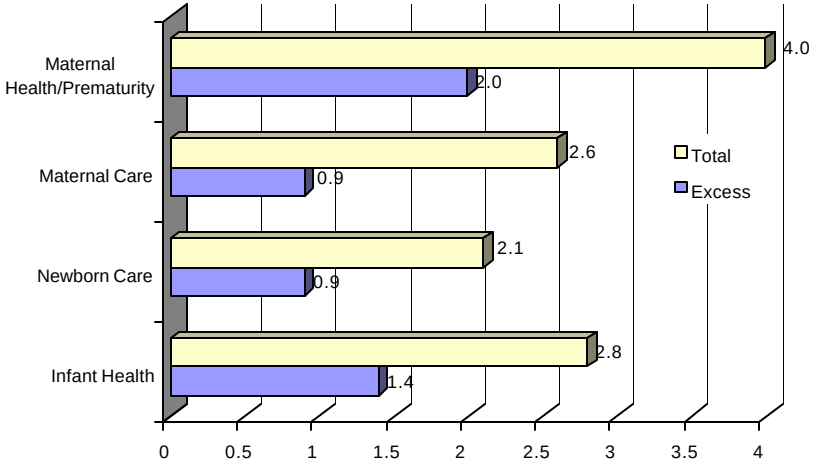


PERINATAL PERIODS OF RISK

The Perinatal Periods of Risk analysis (PPOR) is used to identify excess infant mortality in an area or population by comparing their experience with a reference group. Births, fetal deaths, and infant deaths for South Phoenix for the years 1995 through 1998 were used in this analysis. The reference group comprised Maricopa County White mothers who delivered at 20 or more years of age and had more than 12 years of education. This analysis was presented to community partners in August, 2000.

The feto-infant mortality rate for South Phoenix was separated into several components that affect mortality: maternal health/prematurity, maternal care, newborn care, and infant health. Factors that most commonly affect maternal health include preconceptional health, unintended pregnancy, maternal health behaviors and conditions, infections before and during pregnancy, and previous pregnancy outcomes. Some of the factors affecting maternal care include prenatal care, preconception care, nutrition during pregnancy, infections during pregnancy, early labor, and the appropriate level of perinatal care. Factors affecting newborn care include hospital quality, level of care available, obstetrical and pediatric expertise, neonatal intensive care, and recognition of emergencies. Prevention and diagnosis of infection and injury, recognition of birth defects and developmental anomalies, SIDS prevention, and promotion of breastfeeding can influence infant health.

South Phoenix Feto-Infant Mortality by Periods of Risk, 1995-1998

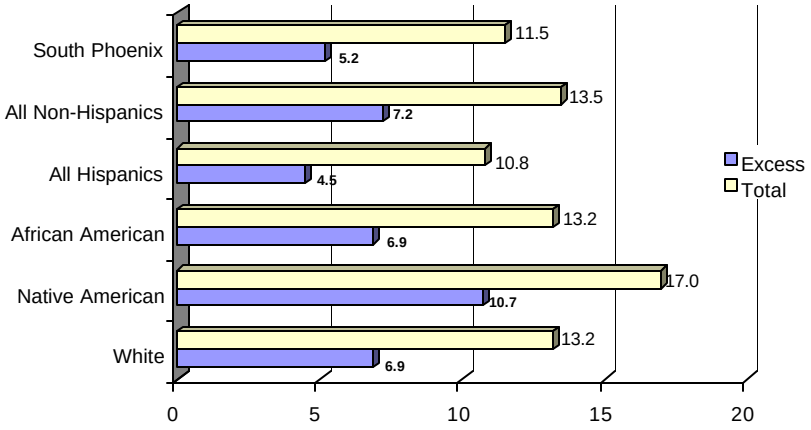


For each component, the feto-infant mortality rate and the part of that rate that was more than expected given the reference group rate (excess) was computed. In South Phoenix, maternal health factors contributed the most to the feto-infant mortality rate. The total feto-infant mortality rate for South Phoenix was 11.5 per 1,000 and maternal health factors accounted for 4/1,000.

In order to determine the racial/ethnic group with the highest level of excess mortality, the periods of risk analysis was stratified by racial/ethnic groups. Native American women in South Phoenix had the highest feto-infant mortality rate as well as the highest excess risk.

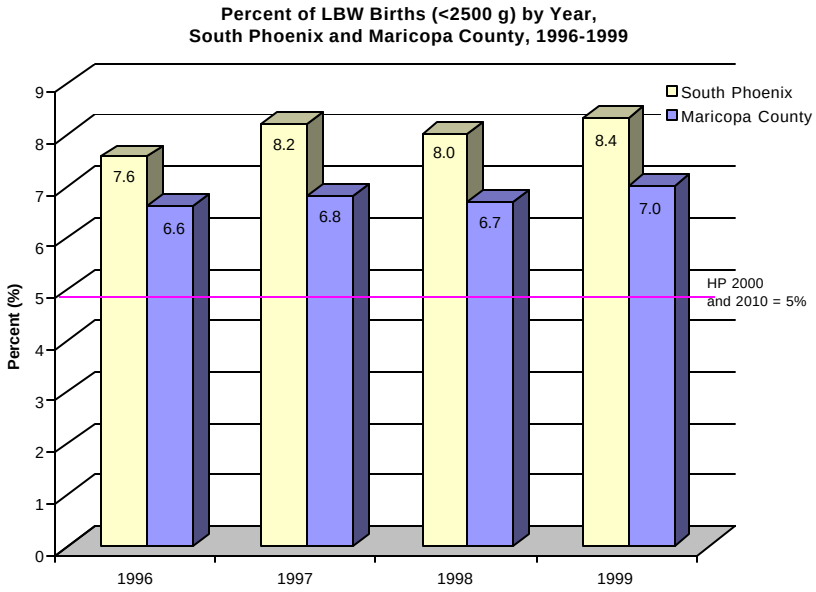
Maternal health was the largest contributor to risk for all groups, except for African Americans where infant health risk was the largest contributor. Native Americans experienced no deaths in the category attributable to maternal care but the number of births was small.

South Phoenix Feto-Infant Mortality by Ethnicity, 1995-1998

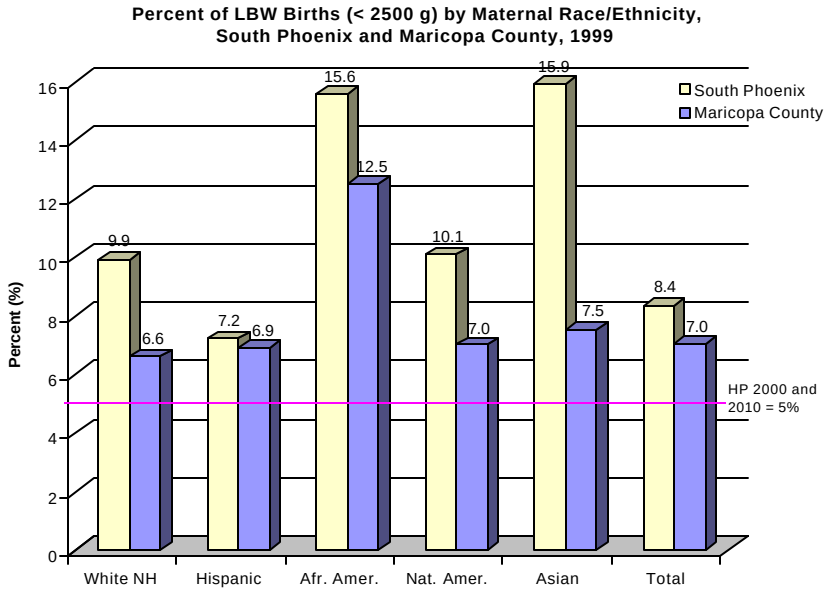


LOW BIRTH WEIGHT AND PRETERM BIRTHS

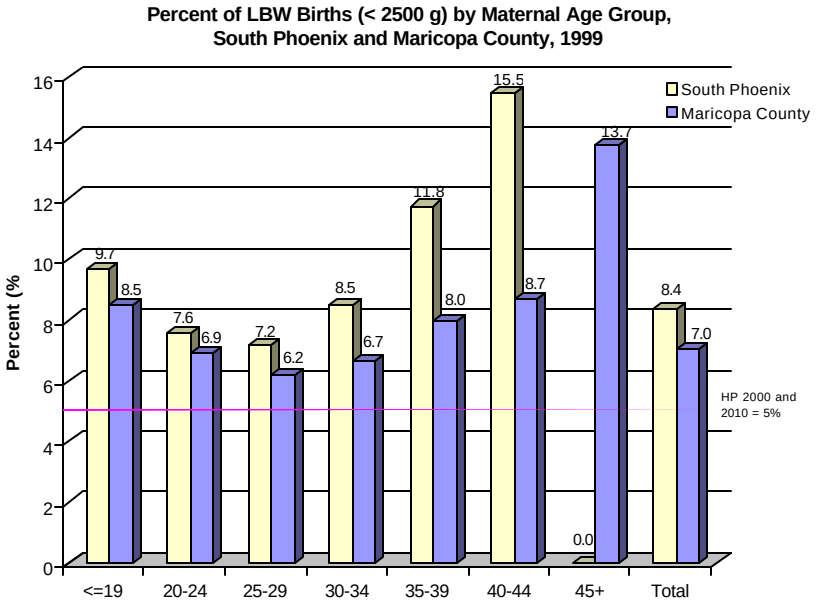
From 1996 to 1999, an average of 8.1 percent of all births to South Phoenix residents were low birth weight (< 2500 grams). Maricopa County's average was lower, with 6.8 percent of all births being LBW. The percent of LBW births was higher each year from 1996 to 1999 in South Phoenix than countywide. Neither South Phoenix nor the county met the Healthy People 2000 and 2010 objective of 5%. A map of low birth weight by census tract is shown in Appendix A, Map 6.



Each racial/ethnic group of women residing in South Phoenix during 1999 had a higher percent of LBW births than their counterparts in the county, with African American and Asian women having the largest percentage of low birth weight births. The 16% low birth weight births for Asians represents 7 LBW births in South Phoenix. No racial/ethnic group in South Phoenix or Maricopa County reached the Healthy People 2000 objective.

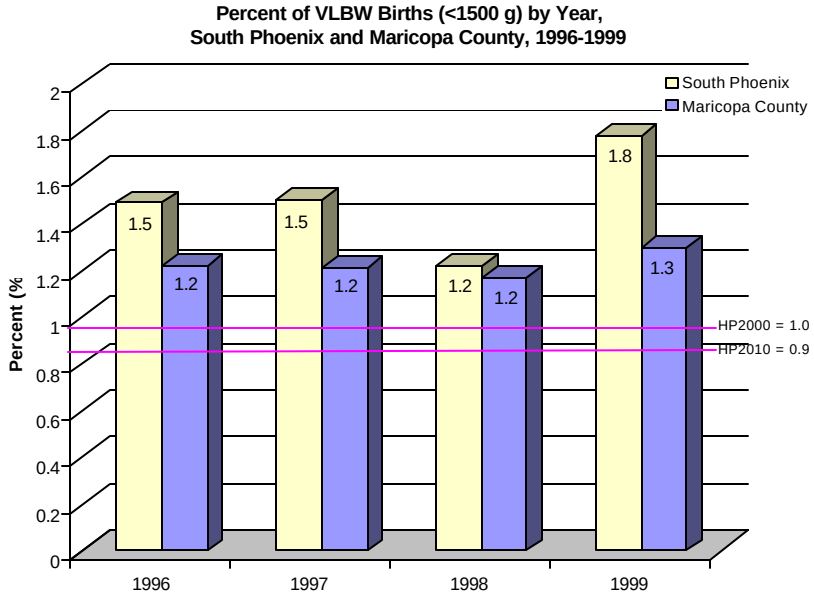


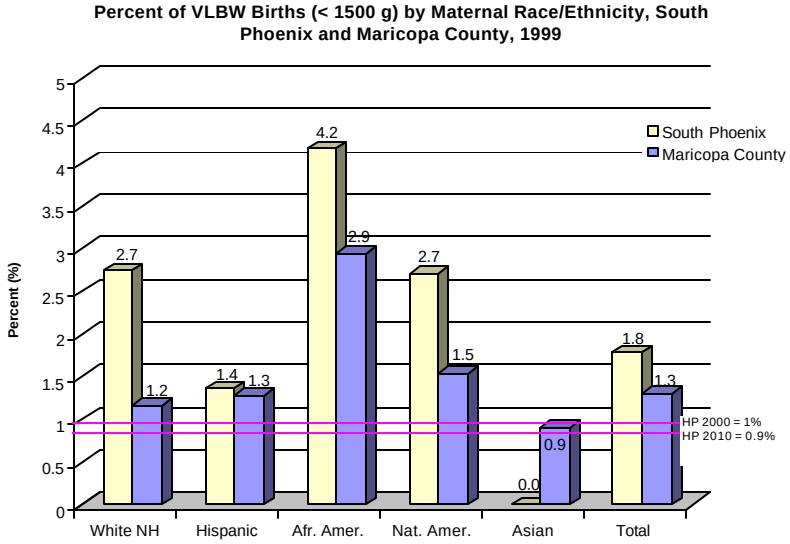
A higher percentage of births were LBW across all maternal age groups in South Phoenix compared to Maricopa County. There were only four births and no LBW births to mothers 45 years of age and over during 1999 in South Phoenix.



The percent of very low birth weight (VLBW) births (< 1500 grams) was higher each year (1996-1999) in South Phoenix than countywide. Neither South Phoenix nor the county met the Healthy People 2000 objective of 1% VLBW births.

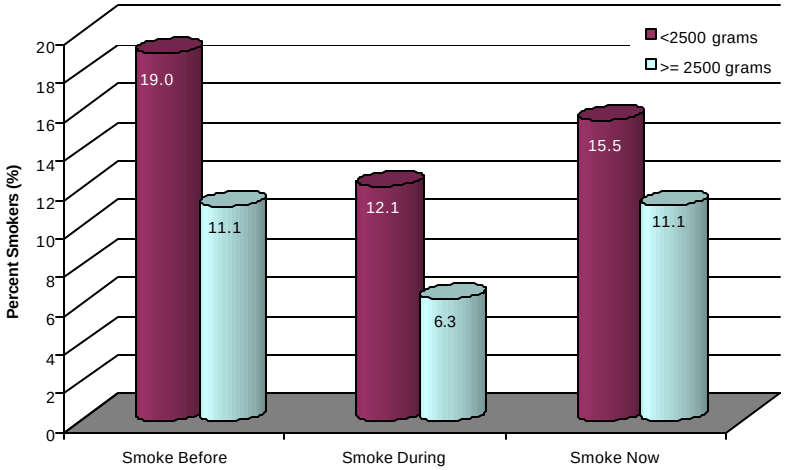
All racial/ethnic groups had a higher percent of VLBW births in South Phoenix than in the county. African Americans had the highest percent of VLBW births in South Phoenix, followed by Whites and Native Americans. Similarly, a higher percentage of VLBW births for all age groups were observed in South Phoenix compared to Maricopa County (data not shown).



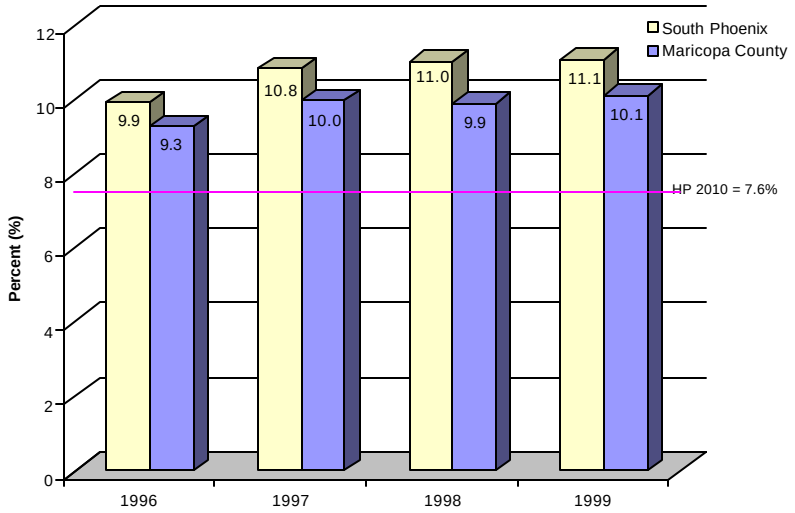


More women delivering low birth weight infants reported smoking during the three months before they were pregnant, the last three months of their pregnancy, and at the time of completing the PRAMS questionnaire (4 to 13 months post-partum), compared to women delivering normal birthweight and heavier infants.

Among Women Who Delivered Low Birth Weight (<2500 g) and Normal Birth Weight (2500+ g) Infants, Percent Who Smoked Before, During, and After Pregnancy, Maricopa County PRAMS 1999-2000



Percent of Preterm Births (< 37 Weeks Gestation) by Year, South Phoenix and Maricopa County, 1996-1999

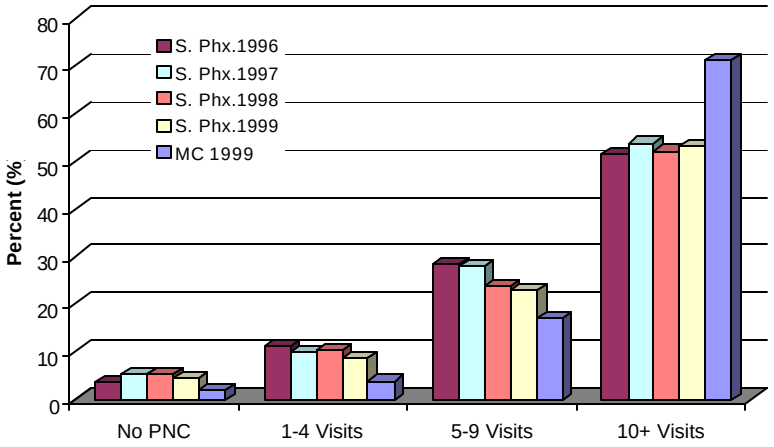


The percent of births that were preterm (< 37 weeks gestation) was higher each year (1996-1999) in South Phoenix than countywide. Neither South Phoenix (average of 10.71%) nor the county (average of 9.80%) reached the Healthy People 2010 goal of 7.6%.

PRENATAL CARE

Women in South Phoenix were less likely to have received 10 or more prenatal care visits compared to women in all of Maricopa County.

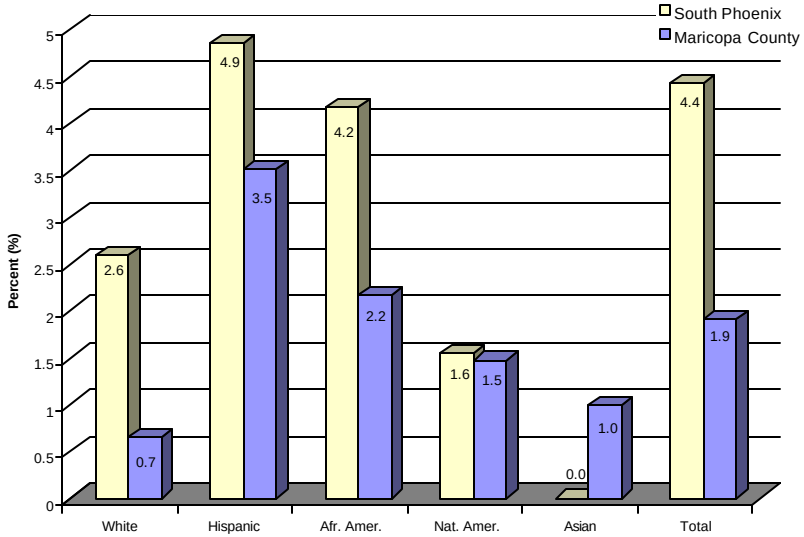
Percent of Mothers Receiving PNC by Number of Visits, South Phoenix 1996-1999 and MC 1999



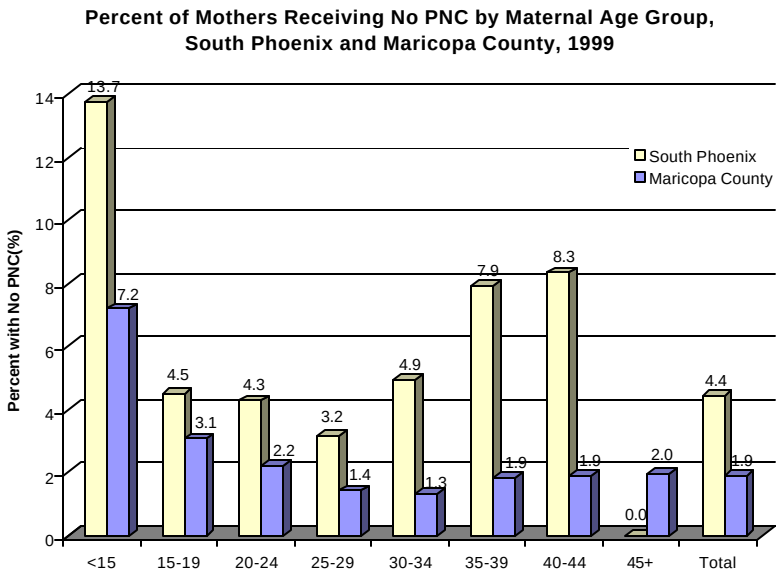
Appendix A, Map 7 displays the percent of mothers receiving no prenatal care by census tract.

During the years 1996-1999, African American mothers had the highest prevalence of mothers receiving no prenatal care in South Phoenix (5.2%, data not shown). In 1999, however, Hispanic mothers in South Phoenix had the highest percentage of women receiving no prenatal care (4.9%), followed by African American mothers (4.2%) and White mothers (2.6%). Over the four years, all racial and ethnic groups in South Phoenix were above the county average for the percent of mothers receiving no prenatal care.

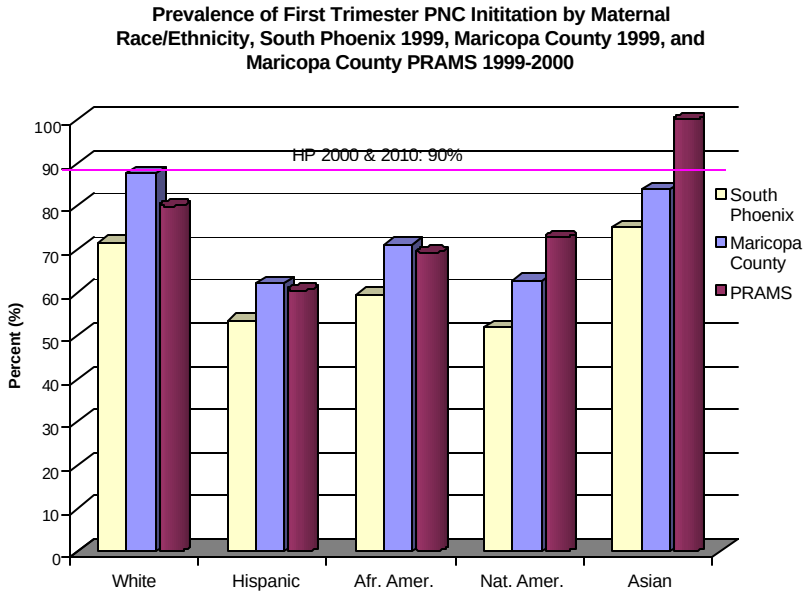
Percent of Mothers Receiving No PNC by Maternal Race/Ethnicity, South Phoenix and Maricopa County, 1999



When looking at no prenatal care across maternal age groups, a reversed 'J' curve shows the tendency of the younger and older age groups to have a higher percentage of women receiving no prenatal care. In South Phoenix during 1999, women in all age categories had a higher percentage of women receiving no prenatal care than for the county (see the graph on the next page).



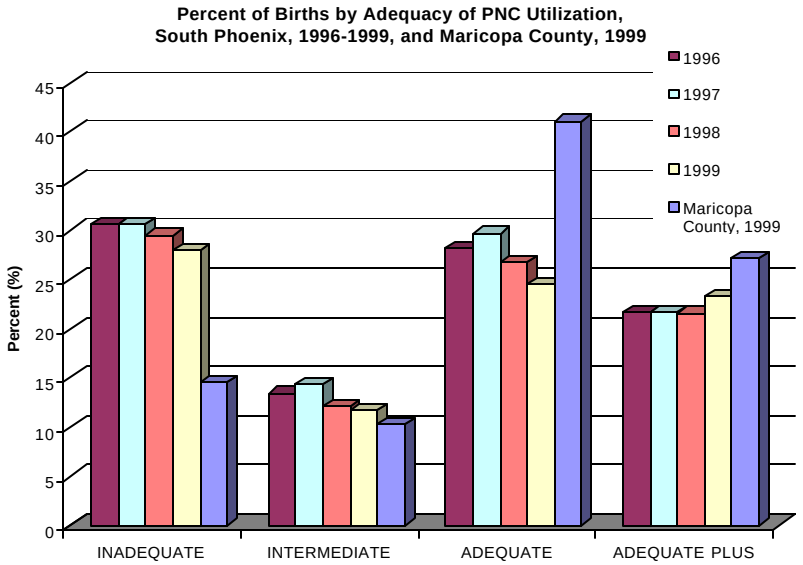
None of the racial or ethnic groups in South Phoenix in 1999 met the Healthy People 2000 or 2010 objective for the percent of women initiating prenatal care in the first trimester, according to birth certificate data. In South Phoenix, Hispanics and Native Americans had the lowest percentage of women initiating prenatal care in the first trimester, followed by Blacks/African Americans. Overall, PRAMS respondents had a higher percentage of mothers initiating first trimester prenatal care compared to all live births in South Phoenix (birth certificate data). This may be a result of self-selection bias.



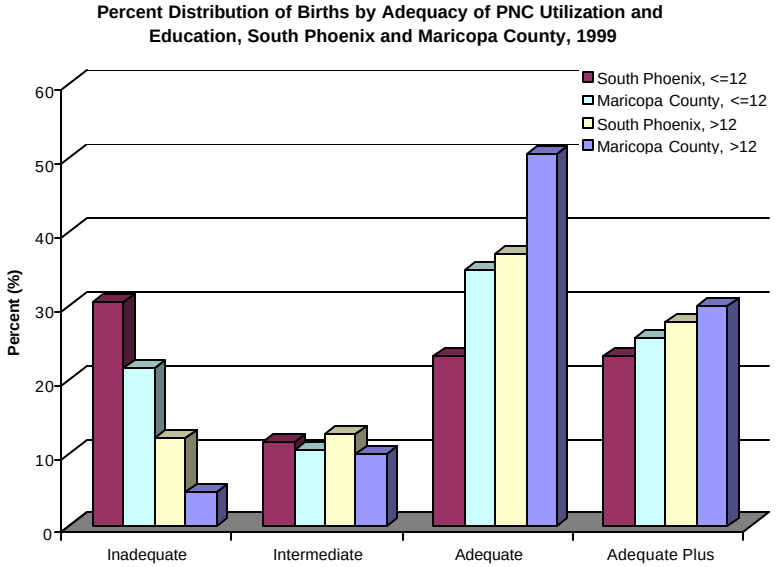
Women of all ages in South Phoenix were less likely to receive first trimester prenatal care when compared to Maricopa County as a whole. In 1999, none of the age groups met the Healthy People 2000 or 2010 objective for first trimester prenatal care initiation of 90% (data not shown).

Adequacy of prenatal care utilization (APNCU) among expectant mothers was determined using the APNCU index [9]. This index characterizes the adequacy of PNC by using the month of initiation and appropriate number of visits depending on the month of PNC initiation and gestational age at birth. The APNCU index does not assess the quality of PNC and does not adjust for risk conditions of the expectant mother. It only assesses PNC utilization.

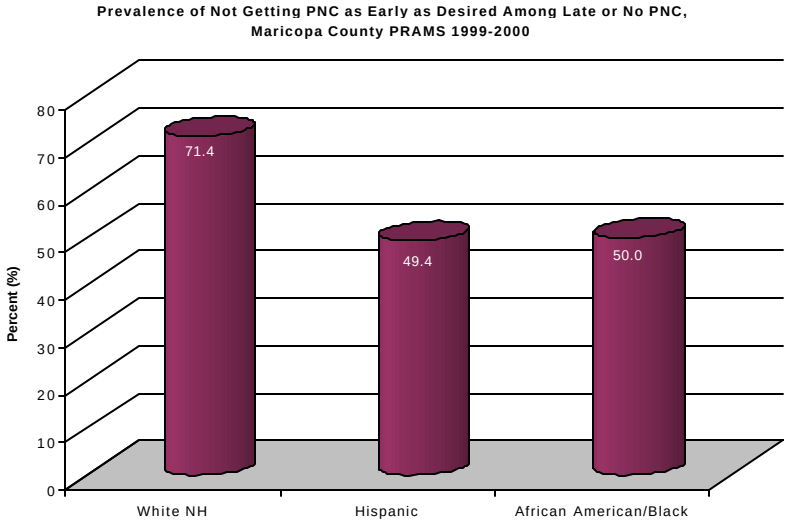
The percent of mothers with inadequate and intermediate PNC utilization in South Phoenix showed a decreasing trend from 1997 to 1999 (27.99% and 11.67% in 1999), as did the percent of mothers with adequate PNC utilization (24.49% in 1999). The percent of mothers with adequate-plus PNC utilization in 1999 increased 15.36% from 1998 (23.31% in 1999).



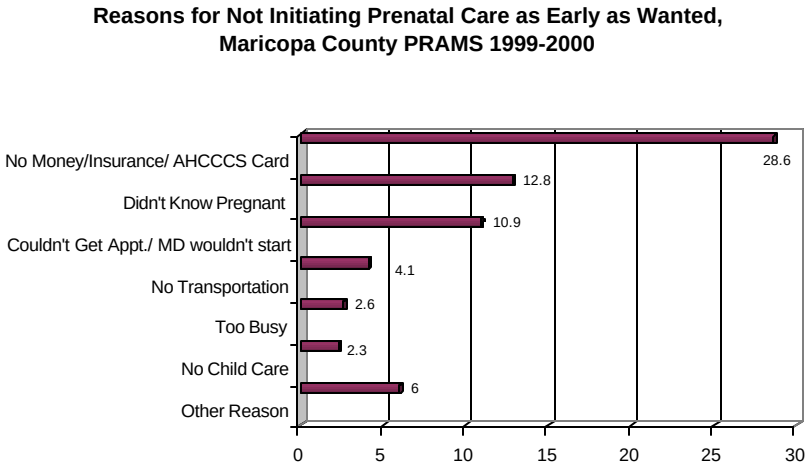
In 1999, mothers in South Phoenix with 12 years of education or less were more likely to have utilized an inadequate level of PNC (30.56%); 21.46% of mothers in the county with 12 years of education or less utilized an inadequate level of PNC. The highest percentages of mothers who adequately utilized PNC were among mothers in both South Phoenix and Maricopa County with more than 12 years of education (36.94% and 50.65%, respectively). Overall, educated mothers (more than 12 years of education) in Maricopa County had better PNC utilization than educated mothers in South Phoenix.



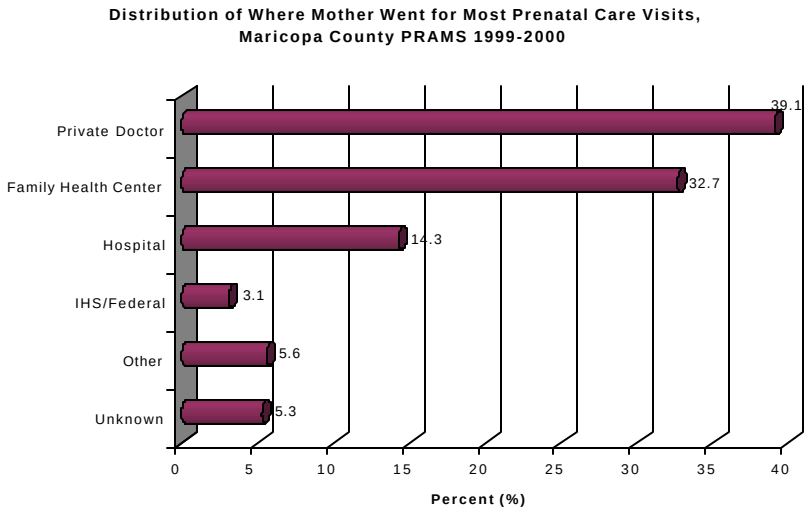
Among those women who did not receive first trimester prenatal care, 71% of the White PRAMS respondents indicated they didn't receive prenatal care as early as they wanted, while approximately 50% of both Hispanic and African American mothers indicated they didn't receive prenatal care as early as they wanted.

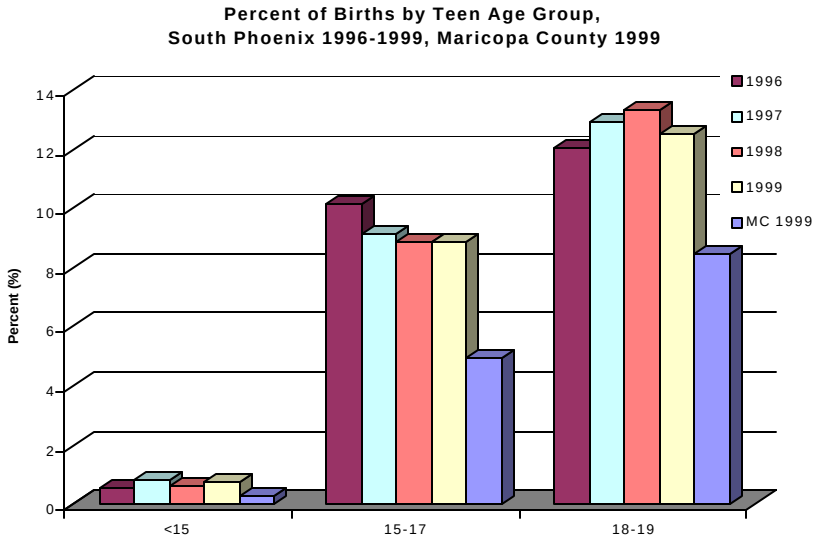


The most common reason cited by PRAMS respondents for not getting prenatal care as early as desired was that the mother did not have enough money or insurance, or an AHCCCS card to pay for her prenatal care visits. Other reasons cited, in descending order of frequency, include, 1) the mother didn't know she was pregnant, 2) she couldn't get an appointment any earlier or her doctor/health plan would not start care any earlier, 3) she had no means of transportation, 4) she had too many other things going on, and 5) she had no one to watch her children.



Mothers responding to the PRAMS survey reported private doctors as the most common source of prenatal care, followed by family health centers, hospitals, and Indian Health Services (IHS) or Armed services. See graph on next page.

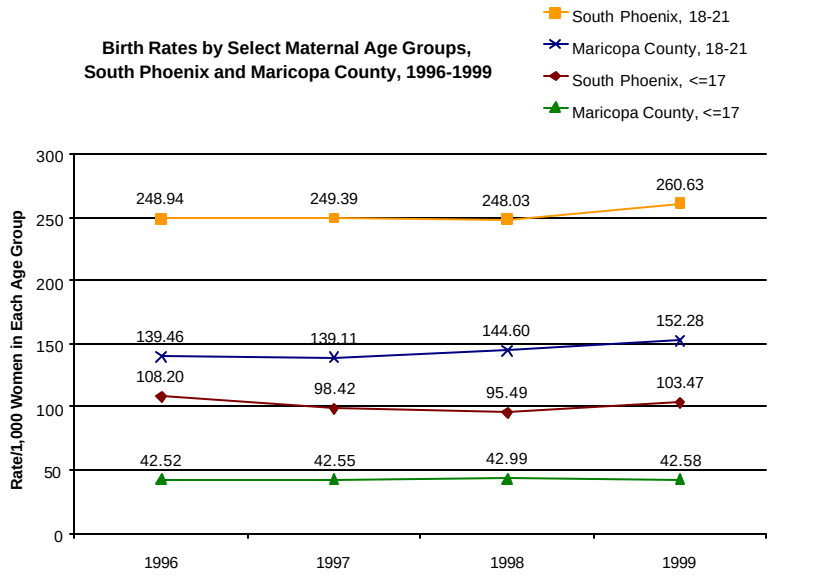




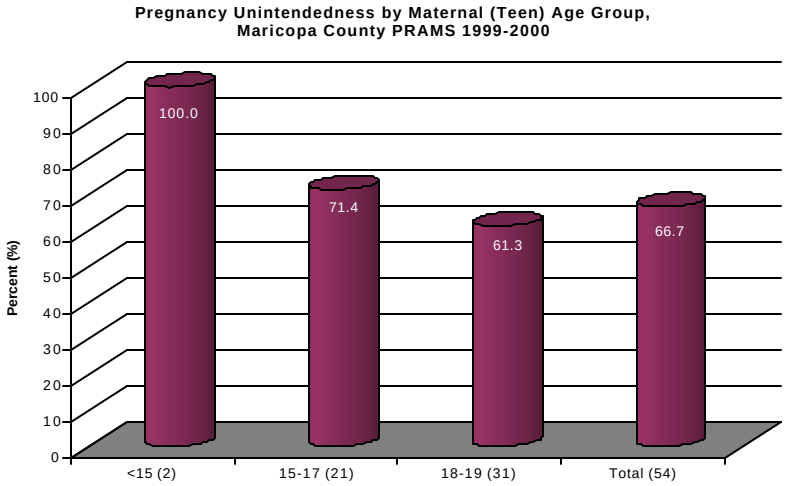
TEEN BIRTHS

In 1999, 22% of all births in South Phoenix were to women 19 years of age or younger; 0.78% were to women 15 years of age or younger (51 births). There was a decreasing trend across years in the percent of births to mothers 15 to 17 years of age. See Appendix A, Map 8 for teen birth rates by census tract.

Teen birth rates were calculated for females 17 years of age and younger and females 18 to 21 years of age, because these were the only young female population age groups available by census tract from the 1995 special census of Maricopa County[11]. Birth rates for South Phoenix teens under the age of 17 were higher than the rates for teens in the county during the period 1996 to 1999. There was a net increase in birth rates for both geographic areas and both age groups, except women 17 years of age and younger in South Phoenix, whose birth rate decreased from 108 in 1996 to 103 in 1999.

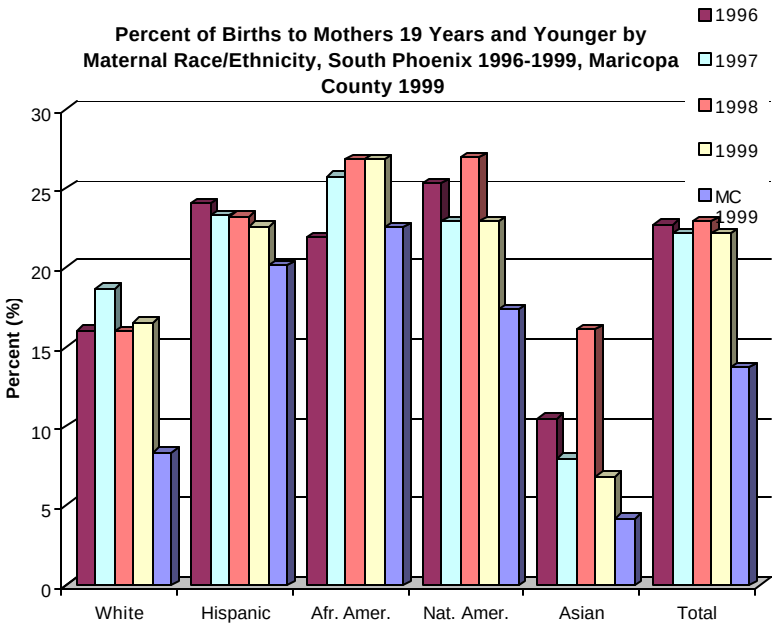


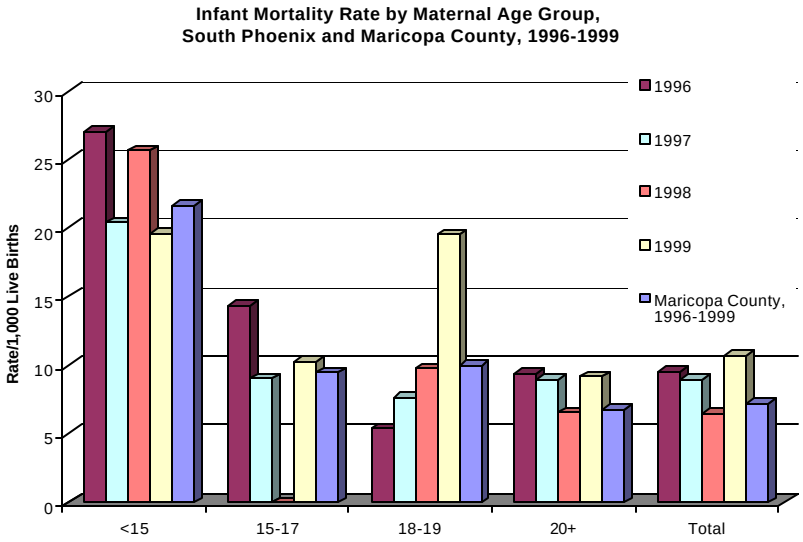
The majority of teenage mothers, approximately 67 percent, did not intend to get pregnant at the time. Among teens 15-17 years of age, 71.43 of the pregnancies were unintended and 61.29 percent of the pregnancies to mothers aged 18-19 were unintended.



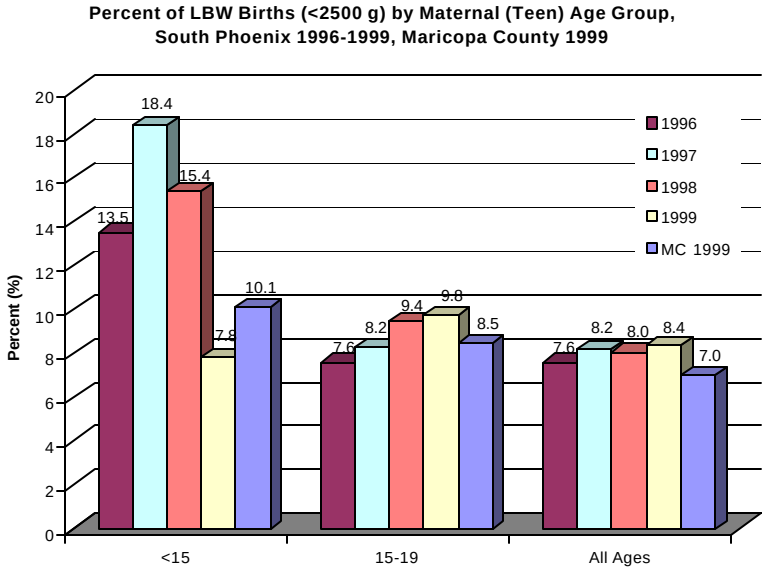
In South Phoenix during 1999, teenage mothers made up 26.86% of births to African Americans, 22.87% to Native Americans, 22.59% to Hispanics, 16.57% to Whites, and 6.82% to Asians.

There was generally a higher infant mortality rate (IMR) in South Phoenix than countywide for most age groups. One exception was mothers aged 15 to 17 years; in South Phoenix the IMR was 8.65 per 1,000 live births (1996-1999 average; 20 infant deaths) compared with 9.44 per 1,000 in Maricopa County (1996-1999 average; 97 infant deaths). The highest IMR among teens was to mothers under 15 years of age (22.73 infant deaths per 1,000 live births) in South Phoenix.





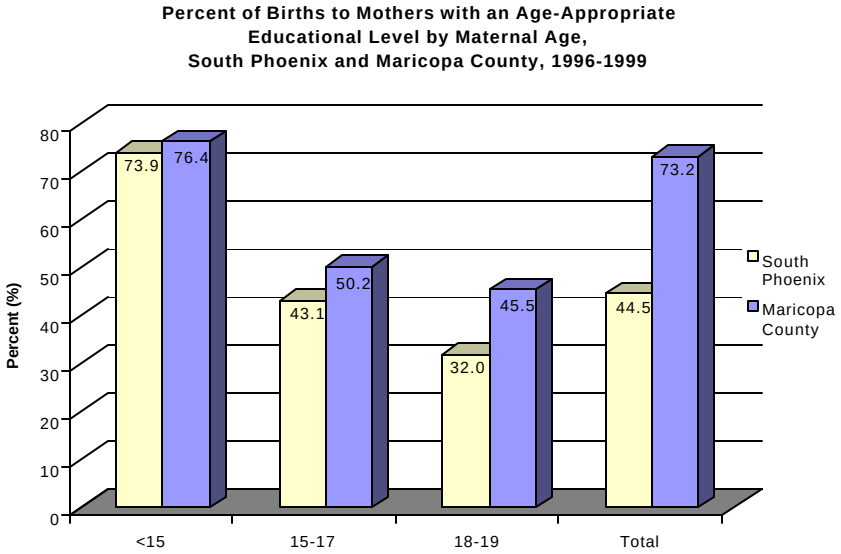
From 1996 to 1999, 21.94% of all births were to mothers 15 to 19 years of age. Teenage mothers had a disproportionately high percentage of LBW births (29.38%).



During 1996 to 1999, 4.51% of mothers 19 years of age and younger who gave birth in South Phoenix did not receive prenatal care (PNC). Only 52.63% of South Phoenix teen mothers received PNC during the first trimester of pregnancy. A larger percentage of mothers 20 years of age and older began PNC during the first trimester (58.12%)

Prenatal Care Utilization Among Teen Mothers in South Phoenix, 1996-1999

	No PNC		Began PNC during First Trimester	
	n	%	n	%
<15	18	10.23	62	35.23
15-19	237	4.33	2914	53.18
All Teens	**255**	**4.51**	**2976**	**52.63**
20+	**907**	**4.70**	**11219**	**58.12**



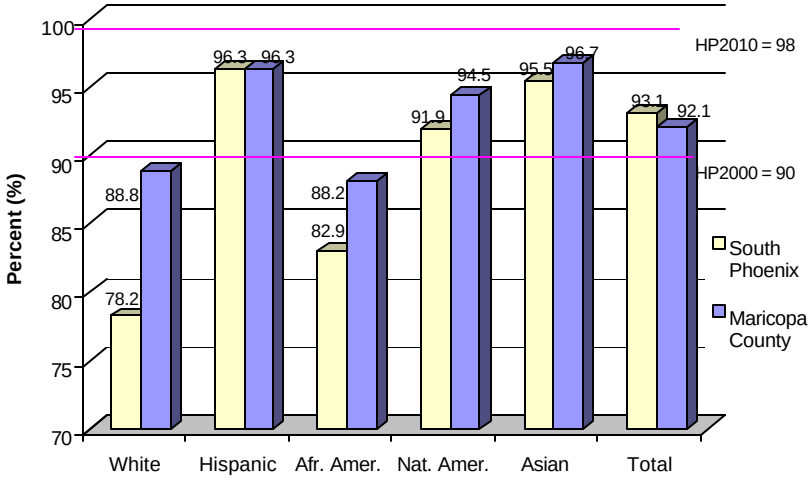
All births were dichotomized into two categories: delivered to a mother with an age-appropriate education level or not [10]. An age-appropriate education level for an 11 year old was fourth grade (or higher) because the majority of people who are 11 years old are in fourth of fifth grade. The age-appropriate education level increased by one year for each year of age increase, such that the appropriate education level for mothers 18 or more years of age was twelfth grade or higher [5]. Among teen age groups, mothers 15 years of age and younger had the highest percentage of achieving an age-appropriate education level in both areas.

SUBSTANCE USE

More women residing in South Phoenix (93%) abstained from tobacco use during pregnancy in 1999 compared with women in Maricopa County (92.06%). South Phoenix Hispanics accounted for this result. All other racial/ethnic groups residing in South Phoenix used more tobacco during pregnancy than their counterparts countywide.

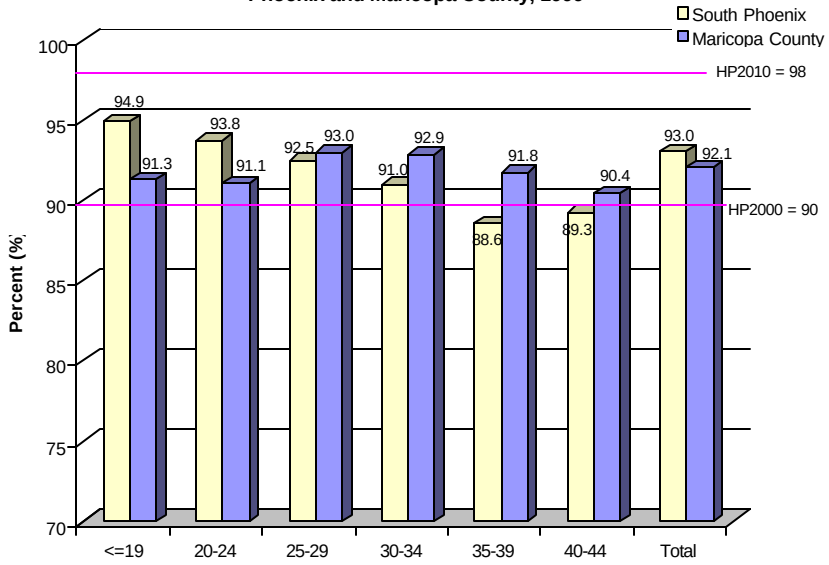
Hispanics, Native Americans, and Asians in both South Phoenix and Maricopa County reached the Healthy People 2000 goal of 90 percent tobacco abstinence during pregnancy. No racial/ethnic groups in residing in South Phoenix or Maricopa County reached the Healthy People 2010 objective of 98 percent abstinence.

Prevalence of Tobacco Abstinence by Maternal Race/Ethnicity, South Phoenix and Maricopa County, 1999



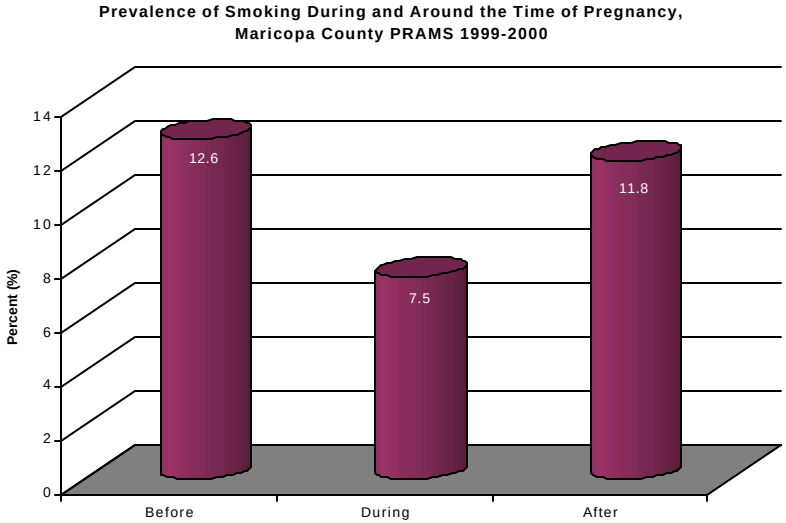
South Phoenix women under the age of 24 abstained from tobacco use during pregnancy more than same age women in the county. The older age groups in South Phoenix abstained less compared with same age women in the county.

Prevalence of Tobacco Abstinence by Maternal Age Group, South Phoenix and Maricopa County, 1999



See Appendix A, Map 9 for tobacco abstinence during pregnancy by census tract.

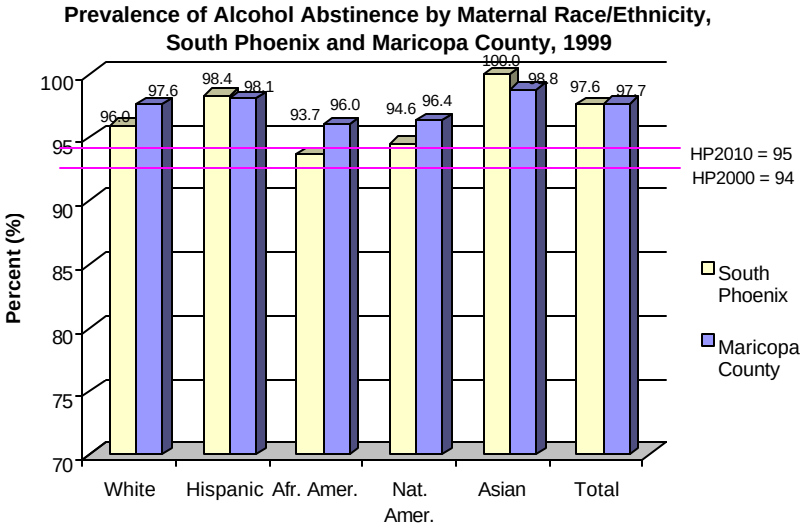
Before pregnancy, 12.6% of South Phoenix women smoked cigarettes and 11.8% smoked after delivery. While some women quit smoking during pregnancy, 7.5% continued to smoke during their pregnancy.

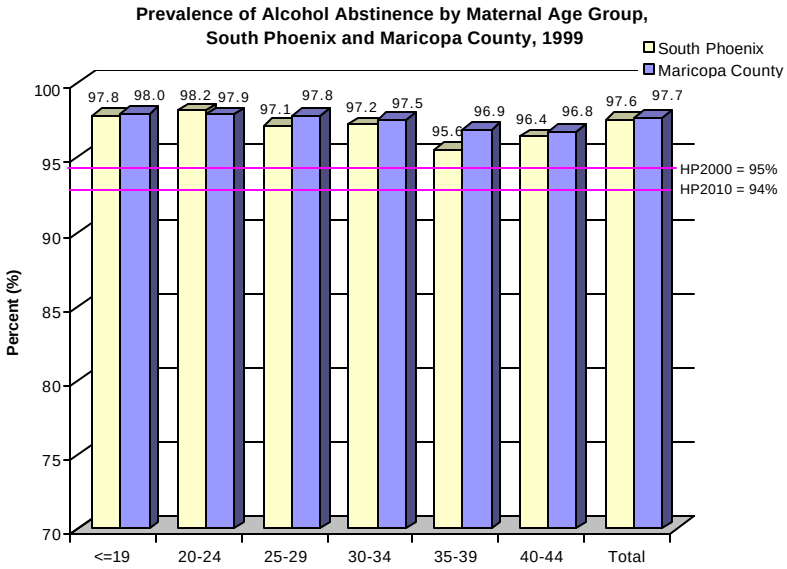


More than 95% of South Phoenix and Maricopa County residents abstained from drinking alcohol during pregnancy in 1999, reaching the Healthy People 2010 objective. See Appendix A, Map 10 for the distribution of alcohol abstinence during pregnancy.

African Americans residing in South Phoenix did not reach the 2010 or 2000 goal with approximately 93 percent abstaining from alcohol while pregnant.

All age groups in both South Phoenix and Maricopa County reached the Healthy People 2010 objective of .95% abstinence from alcohol during pregnancy.

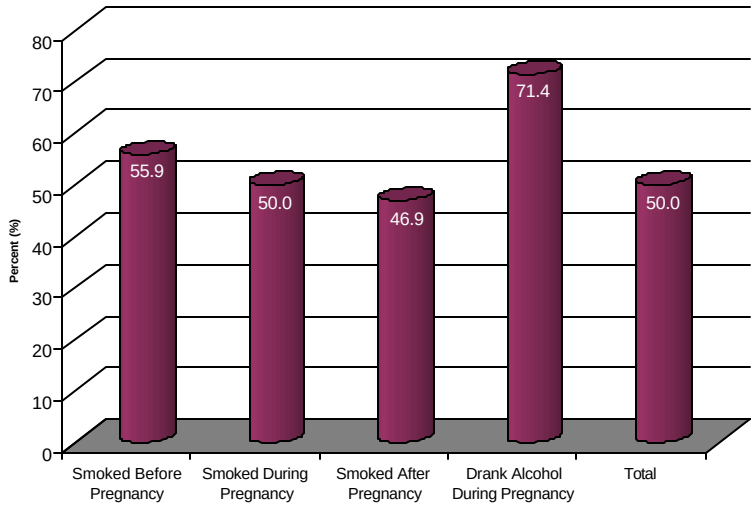




Unintended pregnancies include both mistimed pregnancies (women who want to become pregnant but not at the current time) and unwanted pregnancies (women who did not want to become pregnant now or in the future).

Almost 70% of the women who drank alcohol during their pregnancy had an unintended pregnancy. Approximately half of the women who smoked cigarettes during pregnancy had an unintended pregnancy.

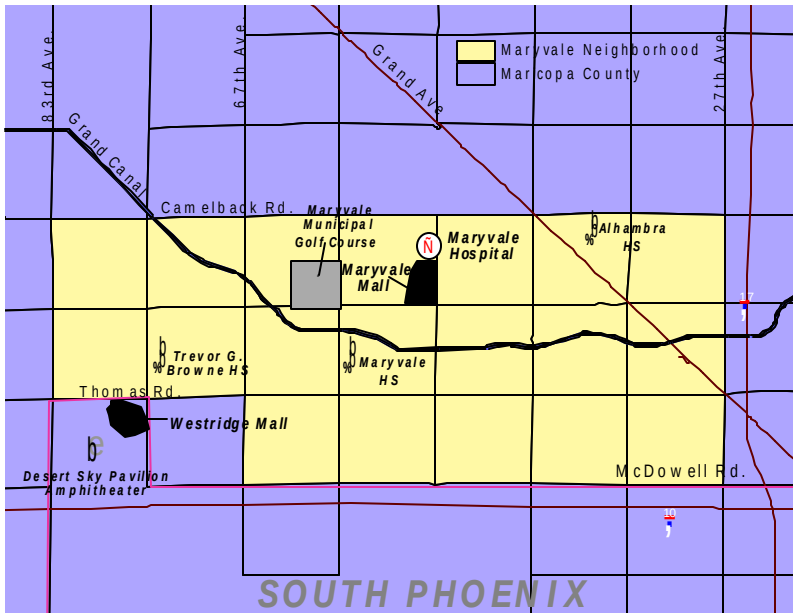
Percent of Pregnancies Unintended by Cigarette/Alcohol Use, Maricopa County PRAMS, 1999-2000



Section VI. Maryvale Area Analysis

INTRODUCTION

Maryvale Neighborhood, Phoenix, Arizona



The Maryvale Neighborhood is composed of 19 census tracts embedded within the city of Phoenix between McDowell and Thomas Roads from 27th to 67th Avenues and between Thomas and Camelback Roads from 27th to 83rd Avenues. The 1990 census tracts defining Maryvale include 109100-109500, 109601, 109602, 109701, 109702, 109800-110000, 110100, 110200, 112100, 112200, 112300, 112400, and 112502. See Appendix A, Map 2 for the location of the Maryvale Neighborhood in Maricopa County.

In September of 1999, the Maryvale Prenatal Care Public Awareness Project was founded by the Healthy Mothers Healthy Babies Maricopa County Coalition and MCDPH to improve birth outcomes in the Maryvale community. The mission of the project is to promote community awareness about infant mortality and prenatal care issues and to support services that foster healthy mothers, healthy babies, and strengthen families. The project has been successful with significant accomplishments including:

- MCDPH provided funding for increasing awareness of MCH issues, educating the community about available resources, and for the recruitment of coalition members from the community. Consequently, attendance at project meetings doubled.
- The MCDPH Community Health Nurses visited ten obstetric offices serving Maryvale women to raise awareness about MCH concerns and to assess patient needs based on focus group interviews.
- 500 MCH Resource Directories designed for agency personnel were printed and distributed.
- 22,000 bilingual pregnancy hotline outreach brochures were produced – approximately half have been distributed.
- Communication and networking between social service agencies serving the Maryvale Neighborhood increased.
- Grant proposals to fund outreach activities to pregnant women are in progress.

- Teen pregnancy prevention events (Teen Maze) are taking place at local high schools.
- Elected officials support the project.
- A pocket guide of community resources is being designed for the public.

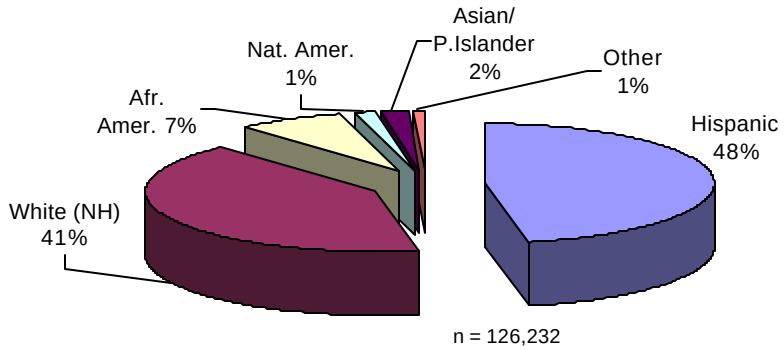
Child and maternal health data from 1996 to 1999 were initially assembled by public health epidemiology students [20] and have been utilized for identifying areas of need within the Maryvale Neighborhood. The findings of this needs assessment are intended to provide direction for public health interventions by the Maryvale Prenatal Care Public Awareness Project and other services to improve the overall health in the Maryvale Neighborhood.

Use caution when examining and interpreting the results because some percentages and/or rates may be based on numbers too small to be meaningful. The number of individuals in any particular category may be small. For example, if women 45 years of age or older in the Maryvale Neighborhood had the same infant mortality rate (IMR) as all other births (e.g., 7/1000) but there were only four live births, there would be no deaths in a group of only four live births. This does not suggest that women 45 years of age and older have an IMR of zero; it means there were not enough births to have at least one death. The numbers used for each graph appear in tables in the "Maricopa County Maternal and Child Health Needs Assessment 2001: Supplemental Data Tables."

SOCIAL AND DEMOGRAPHIC PROFILE

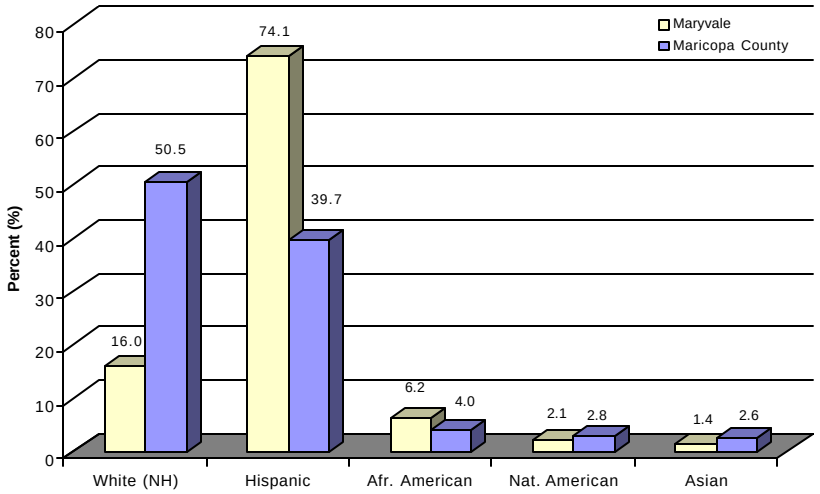
The 1995 Special Census [11] estimated population of the Maryvale Neighborhood was 126,232, which accounted for almost 5% of the Maricopa County population. The largest population groups in the Maryvale Neighborhood were Hispanic (48%) and White (41%). In 1995, the proportion of women 21 years old and younger was higher in the Maryvale Neighborhood than in Maricopa County.

Total Population Distribution by Race/Ethnicity, Maryvale Neighborhood, 1995 Special Census of Maricopa County



The total number of births to residents of the Maryvale Neighborhood in 1999 was 3,781. Births to residents of Maricopa County were 51,535. In the Maryvale Neighborhood, Hispanics accounted for 2,801 births (74.1%) and Whites for 605 births (16%) while in Maricopa County, there were 26,010 births to Whites (50.5%) and 20,469 births to Hispanics (39.7%).

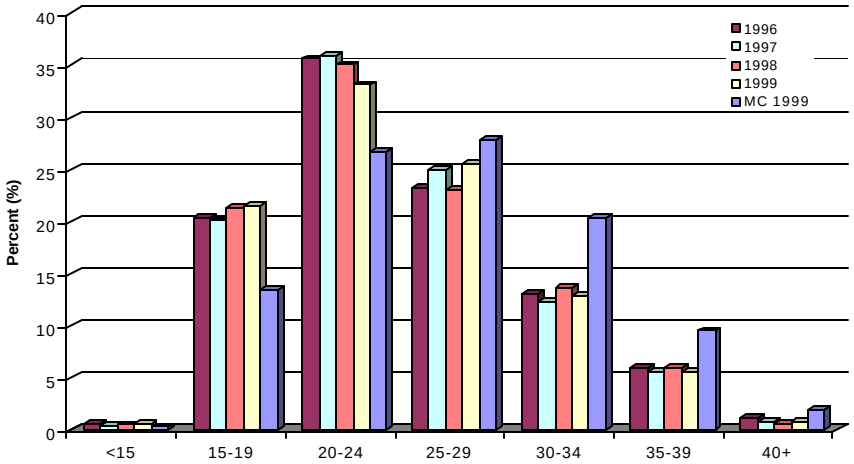
Percent Distribution of Births by Maternal Race/Ethnicity, Maryvale Neighborhood and Maricopa County, 1996-1999



n (Maryvale)	605	2801	235	78	52

Mothers residing in the Maryvale Neighborhood were more likely to be younger than mothers residing in Maricopa County. The age distribution in the Maryvale Neighborhood shows a higher proportion of mothers less than 25 years of age than in Maricopa County. From 1996 to 1999, mothers aged 20-24 made up the single largest age category in the Maryvale Neighborhood, while those 25-29 comprised the predominant age group in Maricopa County in 1999. The percent of mothers in the Maryvale Neighborhood aged 15 to 19 increased slightly between 1997 and 1999.

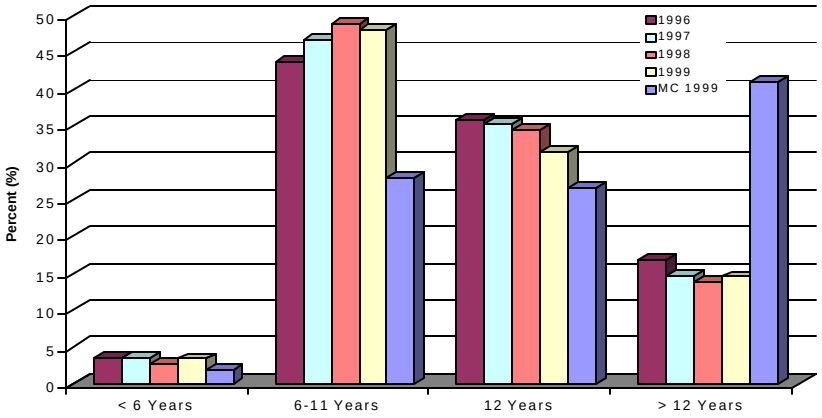
Percent Distribution of Births by Age Group, Maryvale Neighborhood 1996-1999, and Maricopa County 1999



n (4-Year Total, Maryvale)	69	2958	4953	3442	1838	813	119

From 1996 to 1999 in the Maryvale Neighborhood, the percentage of births to mothers with 6 to 11 years of education increased slightly, while the percentage of birth to mothers with 12 years of education decreased slightly. The percentage of mothers with more than a high school education was lower each year in the Maryvale Neighborhood than in the county.

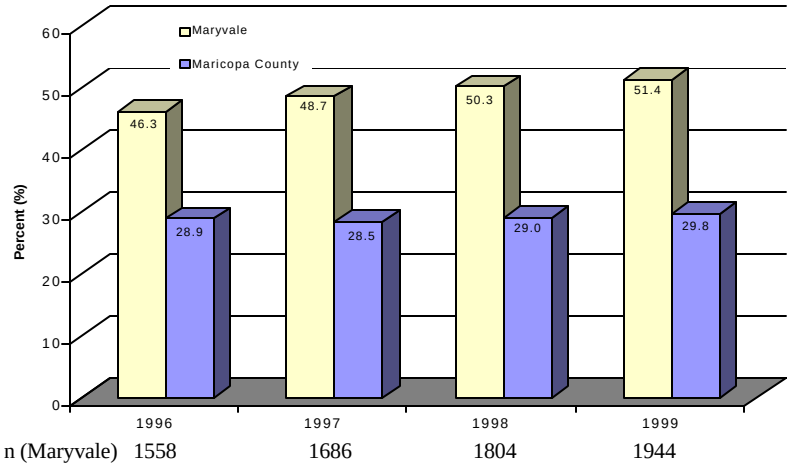
Percent of Births by Maternal Education Level, Maryvale Neighborhood 1996-1999, and Maricopa County 1999



The percentage of mothers not graduating from high school (less than 12 years of education) increased from 1996 (46.3%) to 1999 (51.4%) in the Maryvale Neighborhood. In contrast, percentages remained fairly constant for all years in Maricopa County.

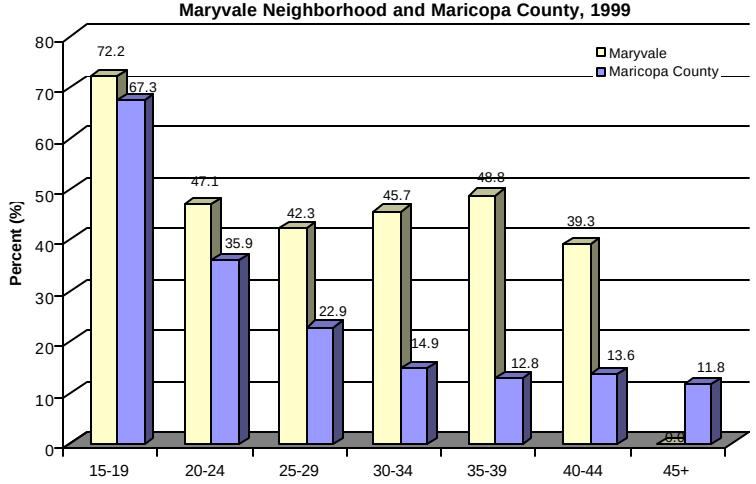
Across all age groups, mothers residing in the Maryvale Neighborhood were less likely to have finished high school than mothers countywide were. Because there was only one birth to a woman in the 45 years and older age category in the Maryvale Neighborhood during 1999, the comparison for that age group is not valid.

Percent of Mothers with Less Than 12 Years of Education by Year, Maryvale Neighborhood and Maricopa County, 1996-1999

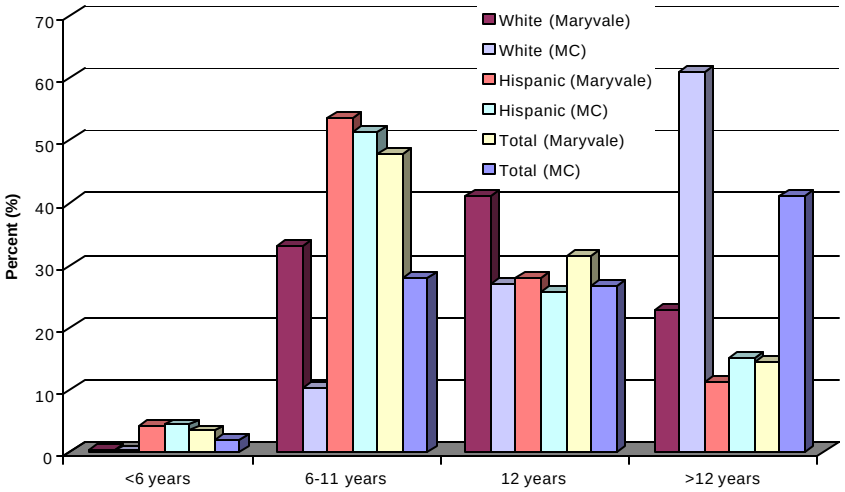


n (Maryvale)	1558	1686	1804	1944

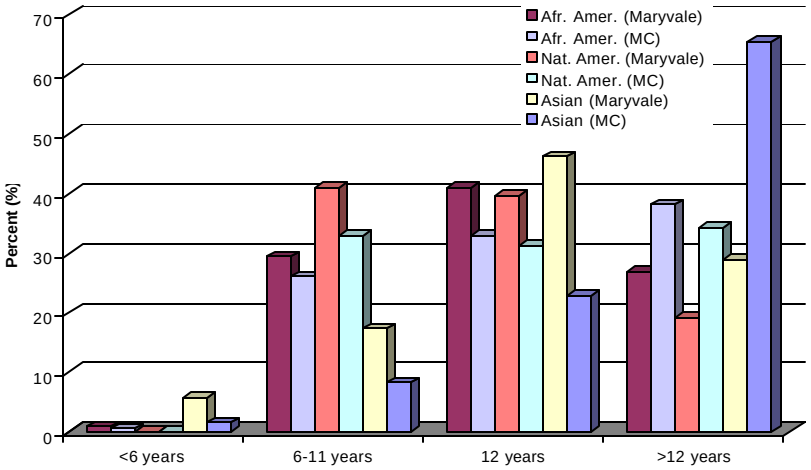
Percent of Births to Mothers with Less Than 12 Years of Education by Maternal Age Group, Maryvale Neighborhood and Maricopa County, 1999



Maternal Education Status of Whites and Hispanics, Maryvale Neighborhood and Maricopa County, 1999

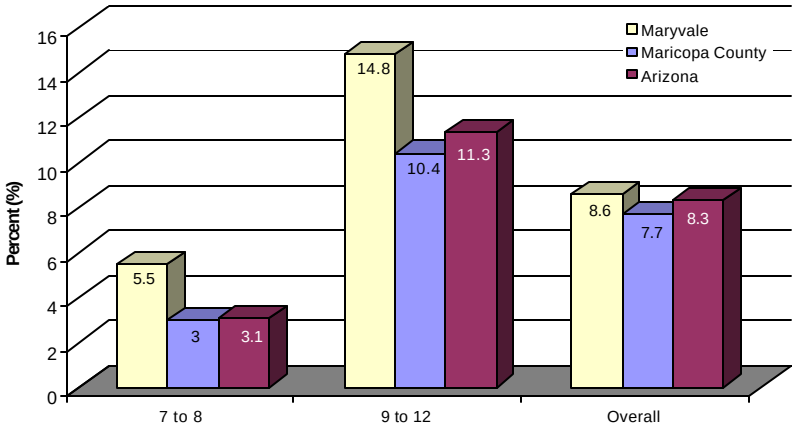


Maternal Education Status of African Americans, Native Americans, and Asians, Maryvale Neighborhood and Maricopa County, 1999



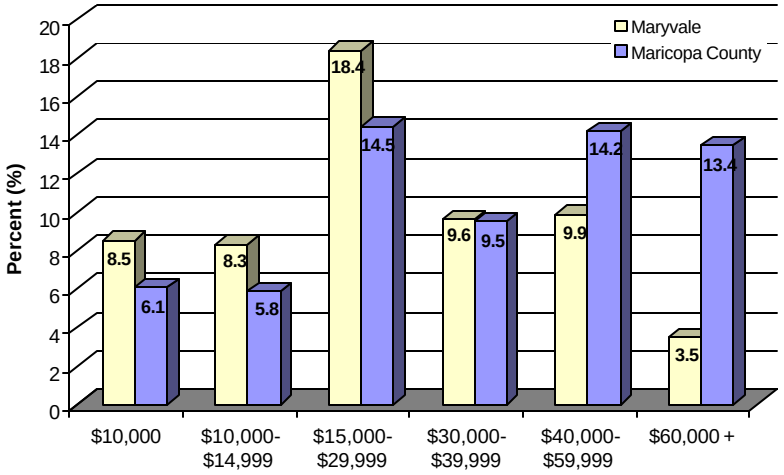
In 1999, the percentage of mothers who did not complete high school (<12 years) was highest among Hispanics in both the Maryvale Neighborhood (68.3%) and Maricopa County (55.9%), followed by Native Americans with 40.2% and 32.9%, respectively.

Drop-out Rates, Grades 7-8 and 9-12, Maryvale Neighborhood, Maricopa County, and Arizona, 1999-2000 School Year



The Maryvale dropout rate represents the average dropout rate for all schools within the Maryvale neighborhood [19]. The overall dropout rate for the Maryvale Neighborhood from 7th to 12th grades (8.6/100) was higher than the county (7.7/100) rate and the State of Arizona rate (8.3/100). The grade-specific dropout rates followed a similar pattern.

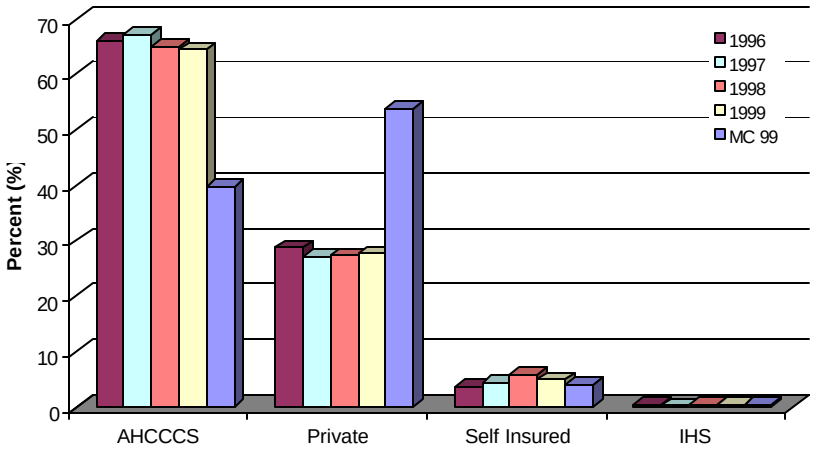
Percent Distribution of Household Income, Maryvale Neighborhood and Maricopa County, 1995



According to the 1995 Special Census [11], the percentage of households earning less than $30,000 per year was higher in the Maryvale Neighborhood than in all of Maricopa County.

The largest source of payment for delivery of births in the Maryvale Neighborhood from 1996 to 1999 was AHCCCS (64.5% in 1999) while private insurance was the second largest source (27.7 in 1999). In contrast, private insurance (53.8%) was the largest method of payment for delivery in Maricopa County during 1999 followed by AHCCCS (39.7%). The percent of women using private insurance in the Maryvale Neighborhood has been stable, 27-28%, during the 1996-1999 period. See Appendix A, Map 4 for the distribution of births paid for by AHCCCS by census tract between 1996 and 1999.

Percent of Births by Source of Payment for Delivery, Maryvale Neighborhood 1996-1999, and Maricopa County 1999



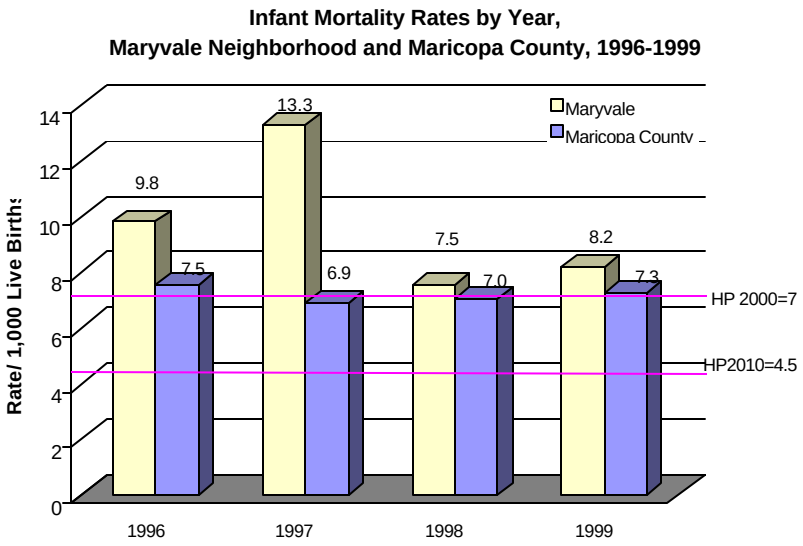
	AHCCCS	Private	Self Insured	IHS
n (4-Year Total, Maryvale Neighborhood)	9322	3932	675	57

Between April 11 and June 18, 2001, focus group interviews with staff from 10 obstetric provider offices serving the Maryvale Neighborhood were conducted to assess patient needs. Providers indicated that the lack of funding for assistance to women not eligible for AHCCCS services and the lack of materials and services available in both English and Spanish were the two problems of greatest concern. A need for more information on social and behavioral resources and better access to social service personnel, especially by phone, was also indicated. Referrals were issued mostly to WIC, AHCCCS, DES, and the Maricopa County STD Clinic. Providers expressed interest in patient follow-up after referrals to social service agencies. The small number of referrals may be indicative of a lack of provider knowledge about available resources, a

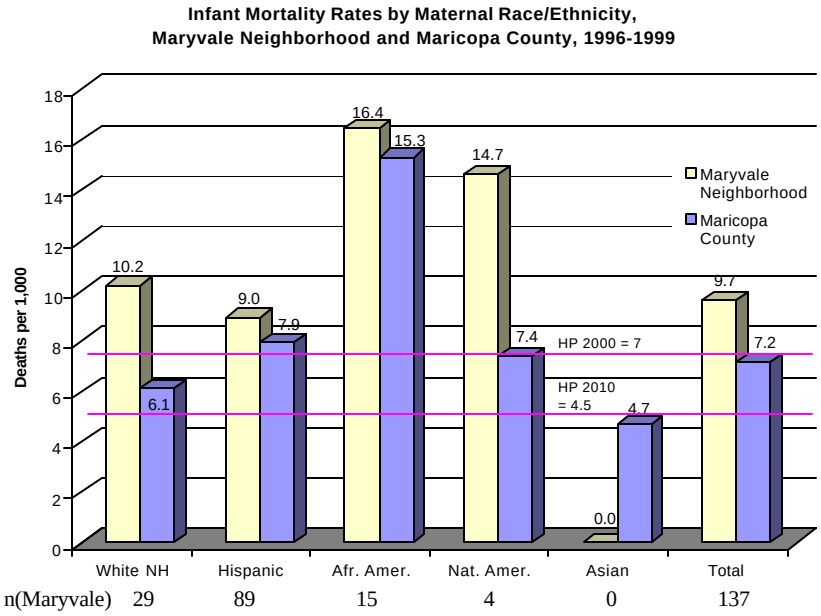
perceived lack of need, or frustration from previous problems with agency personnel.

INFANT MORTALITY RATES

From 1996 to 1999, there were 137 infant deaths in the Maryvale Neighborhood, yielding an infant mortality rate (IMR) of 9.7 per 1,000 live births. 87 of these deaths were neonatal (less than 28 days old) and 50 were post-neonatal (28 to 365 days old). See Appendix A, Map 5 for IMR by census tract.



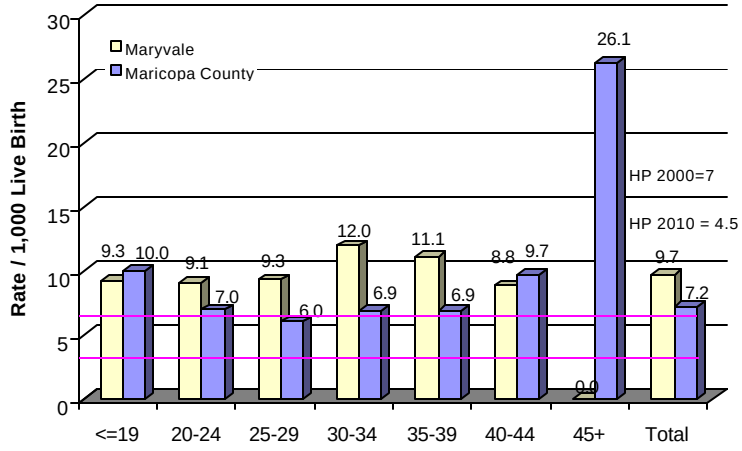
During this period of time, the Maryvale Neighborhood had a higher IMR than Maricopa County. Infant mortality declined in the Maryvale Neighborhood in 1998 (7.5/1,000) and in 1997 for Maricopa County (6.9/1,000) but by 1999 rates had increased to 8.2/1,000 and 7.3/1,000, respectively. Neither area met the Healthy People 2000 [12,13] objective of 7 infant deaths per 1,000 live births in 1999.



African Americans had the highest IMR in the Maryvale Neighborhood (16.4/1,000) as well as in Maricopa County (15.3/1,000), followed by Native Americans (14.7/1,000) in the Maryvale Neighborhood and Hispanics (7.9/1,000) in the county. All racial/ethnic groups in the Maryvale Neighborhood failed to meet the Healthy People 2000 objective of 7 infant deaths per 1,000 live births. It should be noted that infant mortality rates are derived from small numbers of infant deaths.

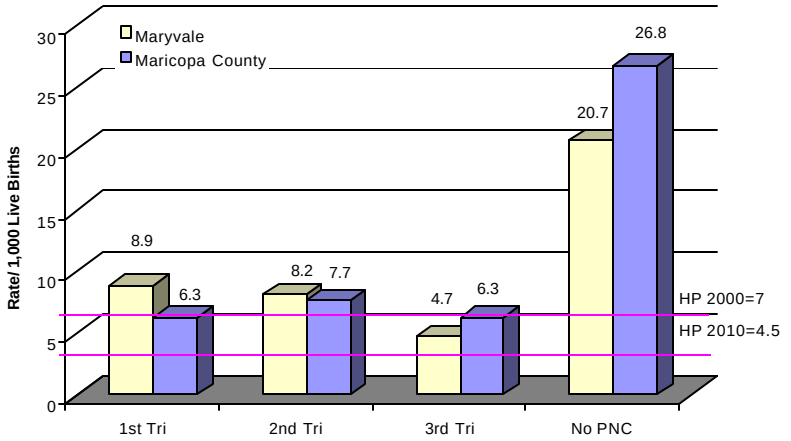
Between 1996 and 1999, the IMR among infants born to mothers of all ages was higher in the Maryvale Neighborhood (9.7/1,000) than in Maricopa County (7.2/1,000). The rate in the Maryvale Neighborhood was highest among infants born to mothers aged 30 to 34 years (12/1,000) whereas in the county, the rate was highest among infants born to mothers aged 45 years and older (26.1/1,000). Rates in the Maryvale Neighborhood are in contrast to the typical J-shaped curve associated with infant mortality and maternal age groups. This may be due to the low number of births and deaths to mothers 35 years of age and older. As shown for the county, older and younger mothers are usually associated with the highest infant mortality rates.

Infant Mortality Rates by Maternal Age Group, Maryvale Neighborhood and Maricopa County, 1996-1999



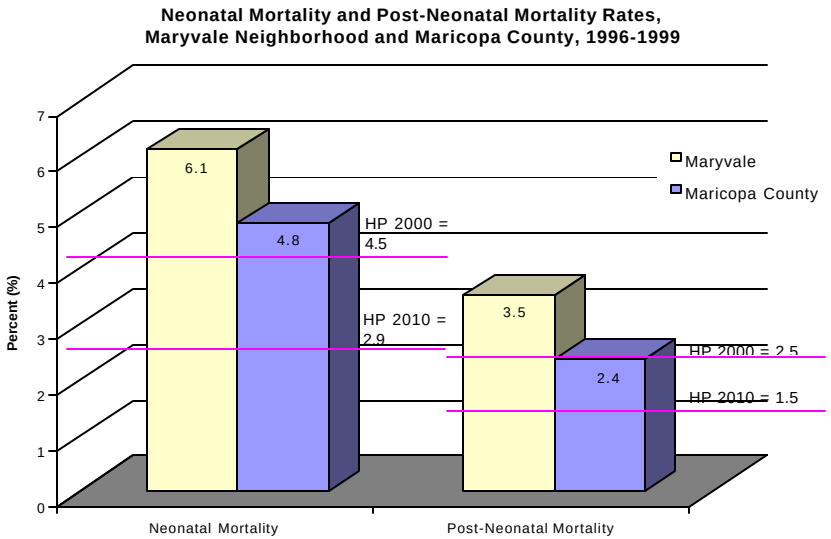
n (Maryvale)	28	45	32	22	9	1	0	137

Infant Mortality Rates by Trimester of Prenatal Care Initiation, Maryvale Neighborhood and Maricopa County, 1996-1999



n(Maryvale)	83	26	4	8

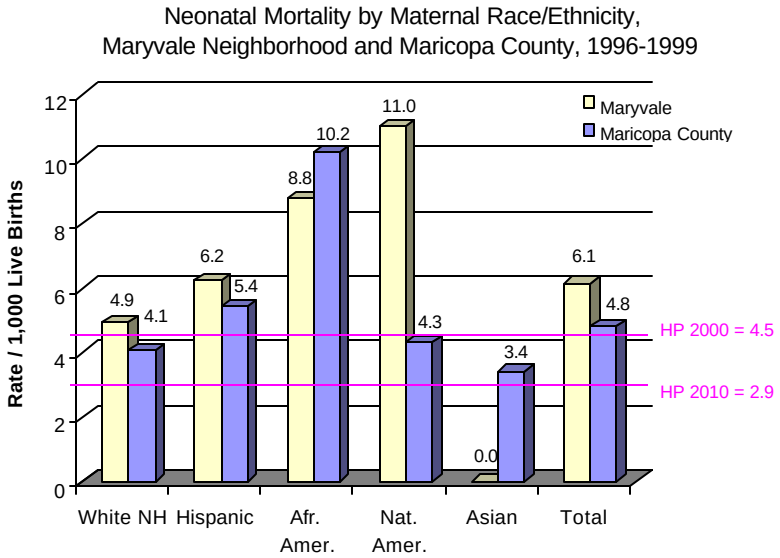
The IMR during the 1996 to 1999 period was highest among infants born to mothers who received no prenatal care in both the Maryvale Neighborhood (20.7/1,000) and Maricopa County (26.8/1,000).



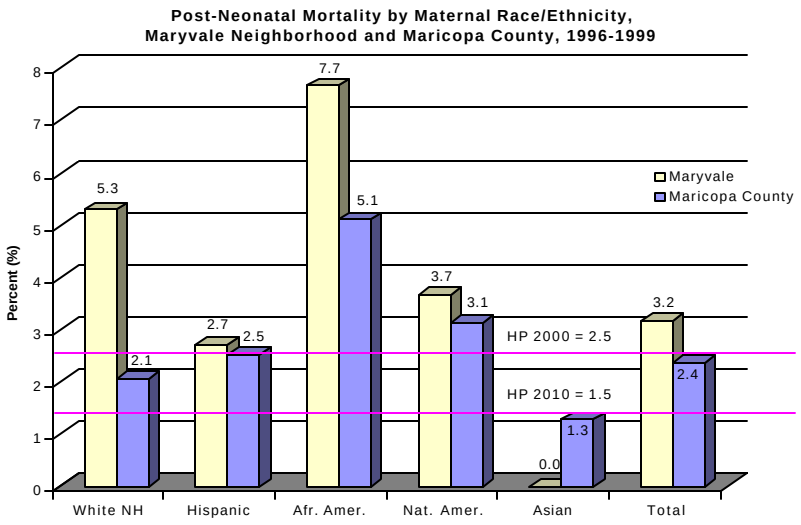
n (Maryvale)	87	50

Similar to the county, nearly 2/3 of the infant deaths in the Maryvale Neighborhood occurred during the neonatal period (NMR). Neither the Maryvale Neighborhood (6.1) nor the county (4.8) met the Healthy People 2000 objective of 4.5 neonatal deaths per 1,000 live births. The Maryvale Neighborhood's post-neonatal death rate (PNMR) was higher than the county's rate; the rate did not meet the Healthy People 2000 objective of 2.5 post-neonatal deaths per 1,000 live births.

The neonatal mortality rate in the Maryvale Neighborhood from 1996 to 1999 was highest among Native Americans (11/1,000), however, there were only 87 births and 3 deaths among Native Americans. African Americans (10.2/1,000) had the second highest NMR. Countywide, African Americans had the highest NMR. While the overall neonatal mortality rate in the Maryvale Neighborhood was higher than Maricopa County, African Americans in the Maryvale Neighborhood (8.8) fared better than those countywide did (10.2). In Maricopa County, Whites, Native Americans, and Asians achieved the Healthy People 2000 objective of 4.5 neonatal deaths per 1,000 live births.



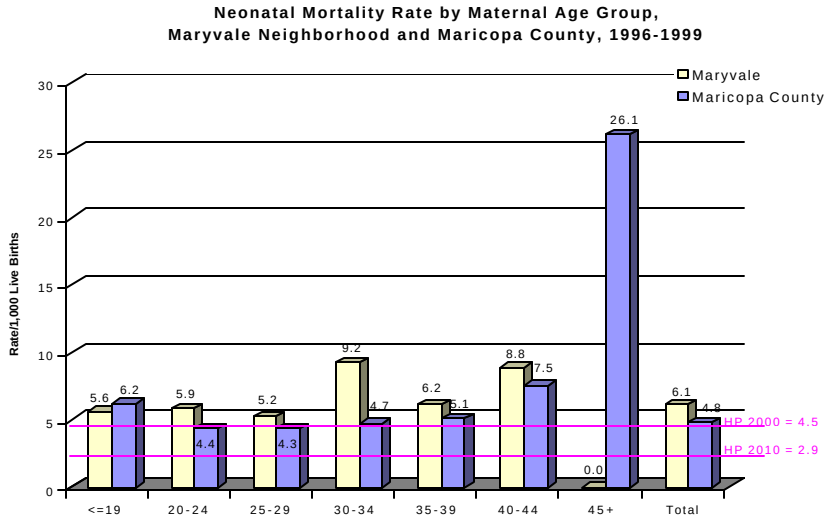
n (Maryvale)	14	62	8	3	0	87



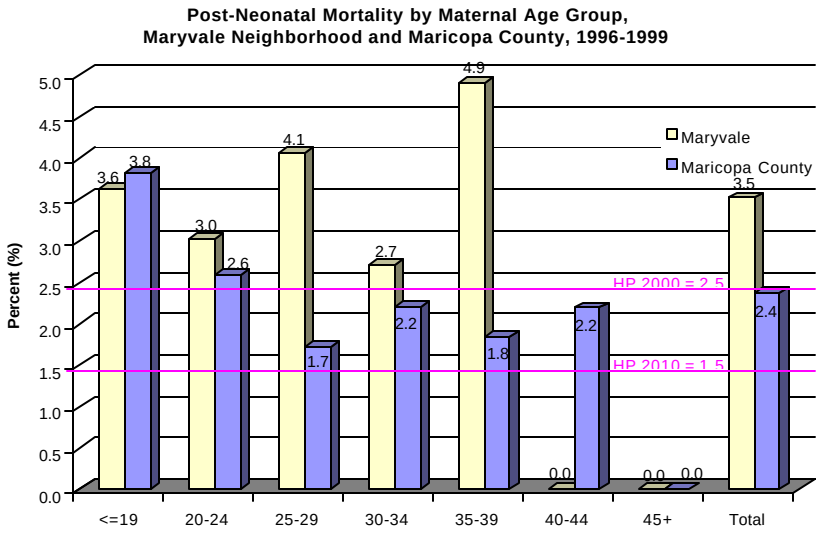
n (Maryvale)	White NH	Hispanic	Afr. Amer.	Nat. Amer.	Asian	Total
	15	27	7	1	0	50

African Americans had the highest PNMR in the Maryvale Neighborhood (7.7/1,000) and in Maricopa County (5.1/1,000), followed by Whites (5.3/1,000) in the Maryvale Neighborhood and Native Americans (3.1/1,000) in the county. Whites, African Americans, and Native Americans in the Maryvale Neighborhood, as well as African Americans in the county, have yet to achieve the Healthy People 2000 objective of 3.5 post-neonatal deaths per 1,000 live births.

The neonatal mortality rate was highest among infants born to mothers in the 30 to 34 -year-old age category in the Maryvale Neighborhood (9.2/1,000) and to mothers 45 years of age and older (26.1/1,000) in Maricopa County. Only Maricopa County women aged 20-29 have achieved the Healthy People 2000 objective of 4.5 neonatal deaths per 1,000 live births.



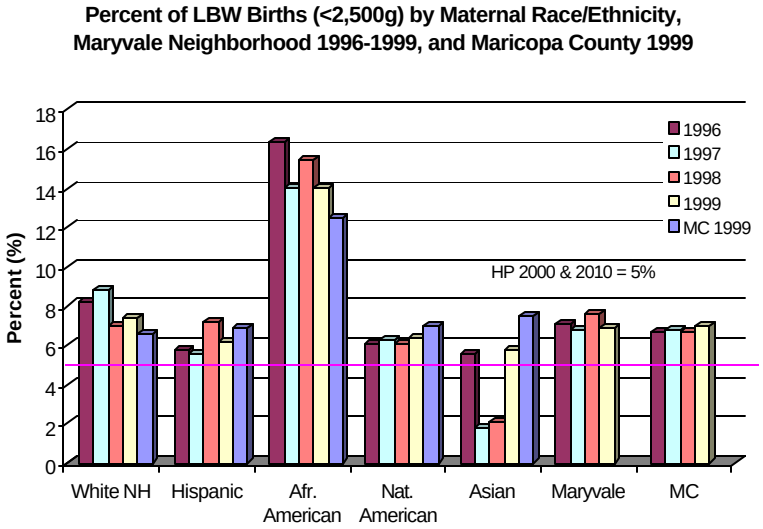
n (Maryvale)	<=19	20-24	25-29	30-34	35-39	40-44	45+	Total
	17	29	18	17	5	1	0	87



The post-neonatal infant mortality rate in the Maryvale Neighborhood was highest among mothers aged 35-39 (4.9/1,000) followed by mothers 25 to 29 years of age (4.1/1,000), while the rate in Maricopa County was highest among mothers 19 and younger (3.8/1,000) followed by 20-24 year olds (2.6/1,000). No age group has achieved the Healthy People 2010 objective of 1.5 deaths per 1,000 live births.

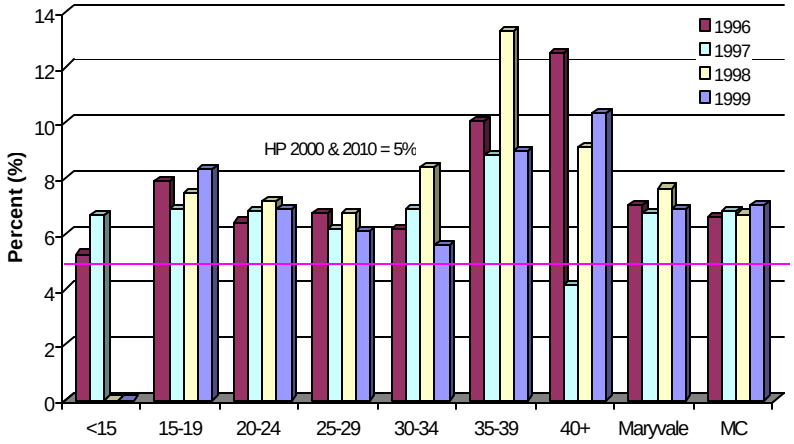
LOW BIRTH WEIGHT AND PRETERM BIRTHS

In 1999, 6.9% (n=262) of the 3,781 live births in the Maryvale Neighborhood were less than 2,500 grams and 1.3% (n=49) of all live births were less than 1,500 grams. The percentage of low birth weight births (LBW; <2,500g) in the Maryvale Neighborhood decreased from 7.6% in 1998 to 6.9% in 1999 while the percentage in Maricopa County increased from 6.7% to 7.0% for the same years. African Americans had the highest percentages of LBW births (<2,500g) in the Maryvale Neighborhood from 1996 to 1999 and in the county during 1999. Among African Americans living in the Maryvale Neighborhood in 1999, 14% of live births were <2,500 grams: 11.4% were between 1,500 and 2,499 grams, and 2.6% were less than 1,500 grams. No racial/ethnic group met the Healthy People 2000 goal of reducing LBW to less than 5% in 1999.

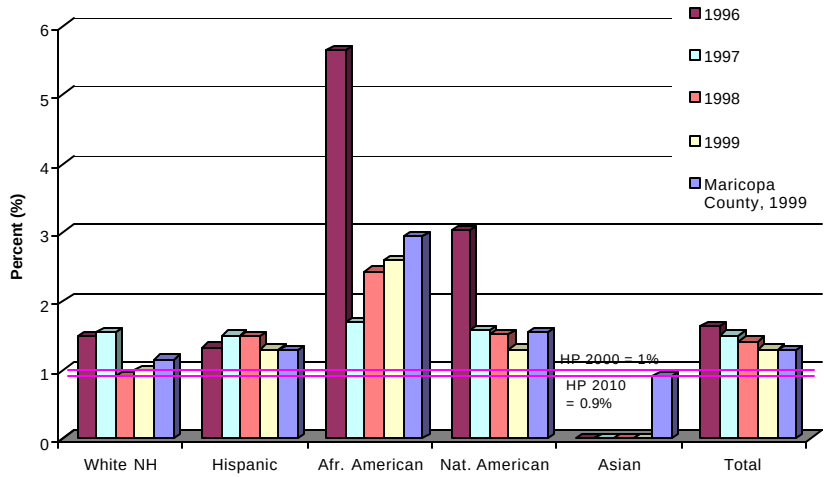


Maryvale Neighborhood infants born to mothers 35 years of age and older were at the highest risk of being LBW, followed by infants born to young mothers (<19 years old). See Appendix A, Map 6 for percent of LBW births by census tract.

Percent of Low Birth Weight Births (<2,500g) by Maternal Age Group, Maryvale Neighborhood, 1996-1999

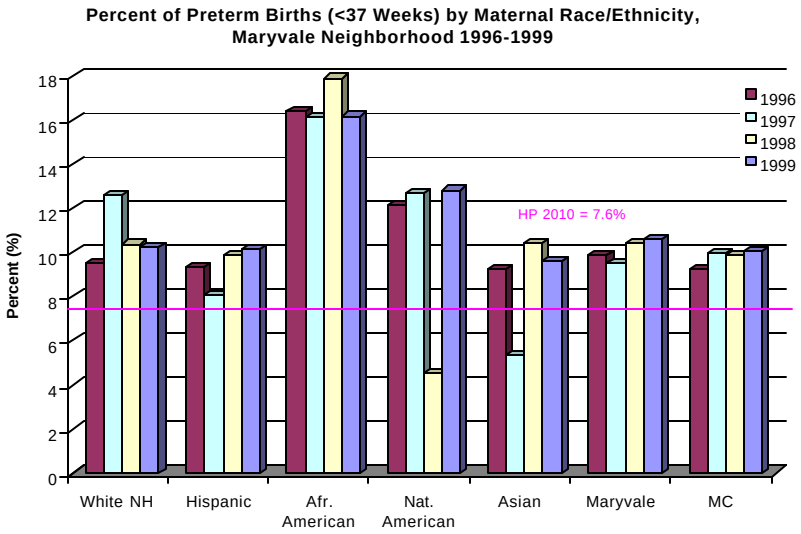


Percentage of VLBW Births (<1,500g) by Maternal Race/Ethnicity, Maryvale Neighborhood 1996-1999, and Maricopa County 1999

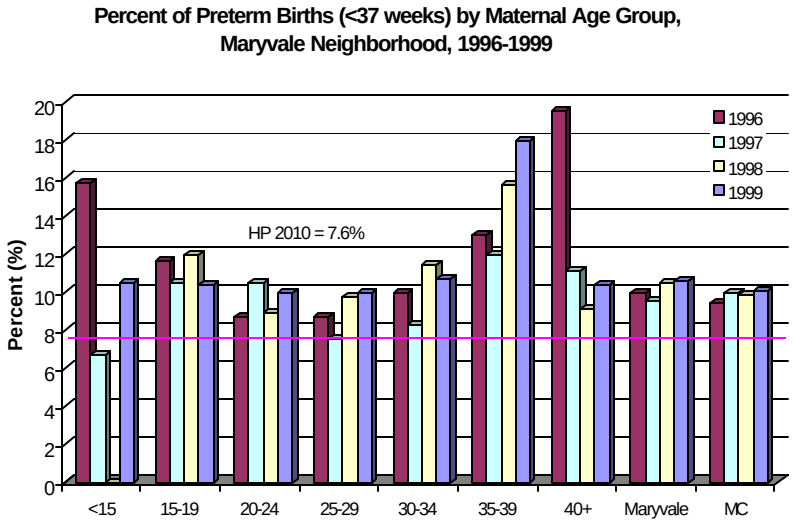


Except for Hispanics, all racial/ethnic groups in the Maryvale Neighborhood had the same or a lower percentage of very low birth weight (VLBW) infants than Maricopa County during 1999. African Americans (3.1%) had the highest average percent of VLBW births (<1,500g) during the four years, followed by Native Americans (1.9%). Except for Asians for which there were few births, no racial/ethnic group in either area met the Healthy People 2000 goal of a reducing VLBW births to 1% in 1999.

African Americans had the highest percentages of preterm births in the Maryvale Neighborhood between 1996 and 1999 (16.6%). In 1999, no racial/ethnic group in the Maryvale Neighborhood achieved the Healthy People 2010 target of reducing preterm births to 7.6%.



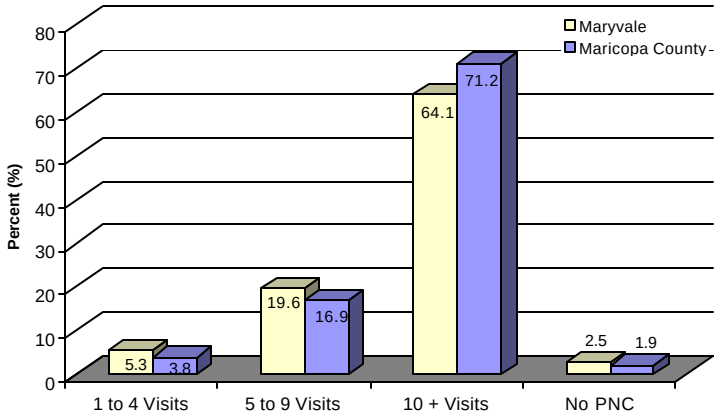
The distribution of preterm births across maternal age groups was similar to that for LBW (<2,500g) births. Mothers at either age extreme had an elevated risk of delivering a preterm infant. The four-year (1996-1999) average of preterm births in the Maryvale Neighborhood was 10% of all live births. This was similar to the average of 9.8% in Maricopa County for the same years.



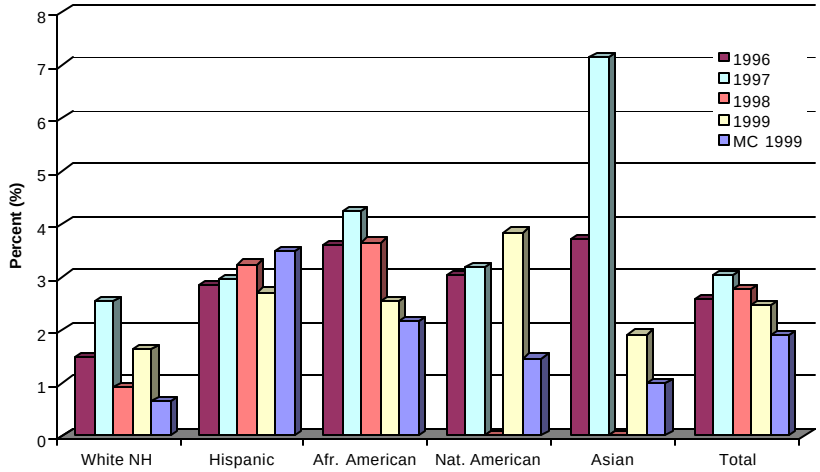
PRENATAL CARE

Maricopa County fared better than the Maryvale Neighborhood with regard to mothers receiving prenatal care (PNC). A higher proportion of pregnant women in Maricopa County received 10 or more prenatal care visits and a smaller percentage had no prenatal care. In 1999, approximately 2.5% of recently delivered mothers in the Maryvale Neighborhood received no prenatal care, compared to 1.9% in Maricopa County. Graph shown on next page

Percent of Mothers Receiving Prenatal Care by Number of Visits, Maryvale Neighborhood and Maricopa County, 1999



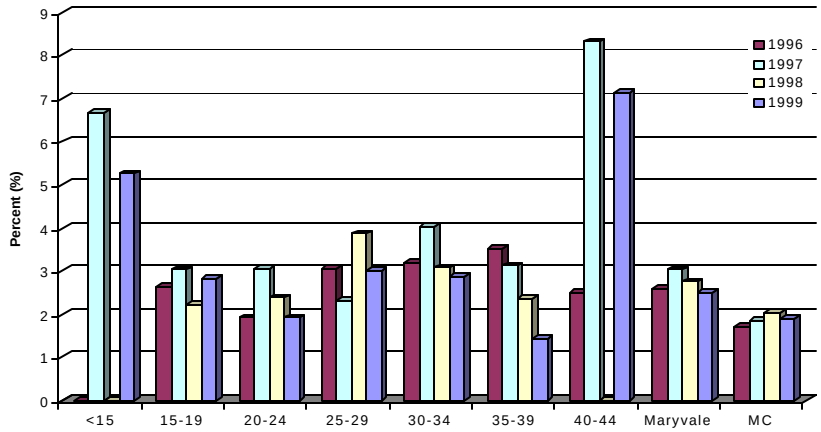
Percent of Mothers Receiving No PNC by Maternal Race/Ethnicity, Maryvale Neighborhood 1996-1999, and Maricopa County 1999

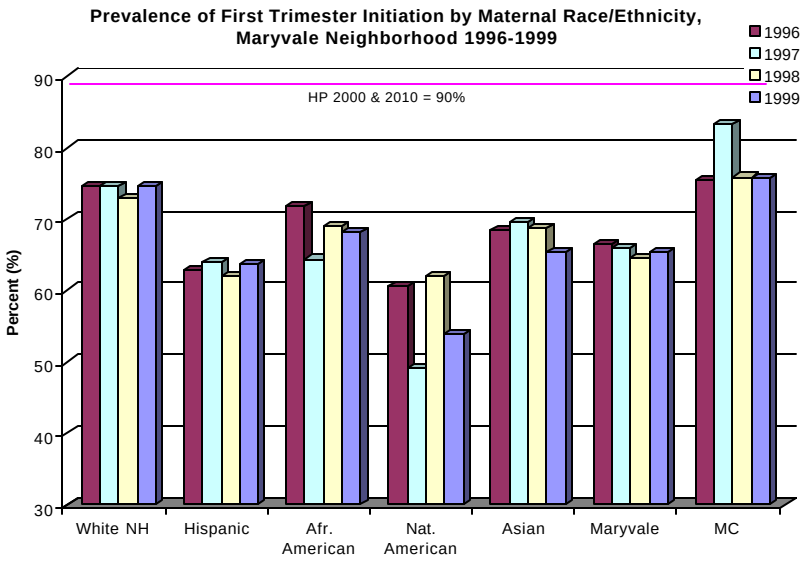


Except for Hispanics, all racial/ethnic groups had a higher percentage of women receiving no prenatal care in the Maryvale Neighborhood than Maricopa County. In 1999, Native Americans had the highest percentage of women receiving no prenatal care (3.8%) followed by Hispanics (2.7%) in the Maryvale Neighborhood. .

Teenage mothers and mothers over 40 years of age were more likely to have received no prenatal care. See Appendix A, Map 7 for the percent of mothers receiving no prenatal care by census tract.

Percent of Mothers Receiving No PNC by Maternal Age Group, Maryvale Neighborhood, 1996-1999

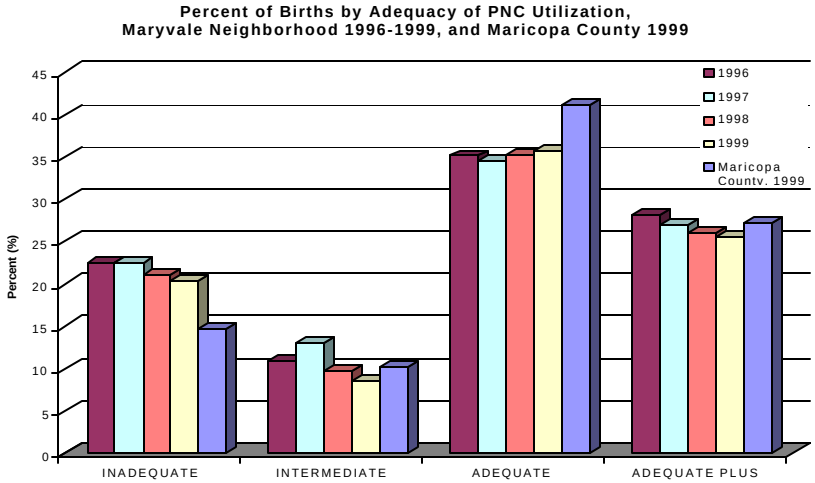




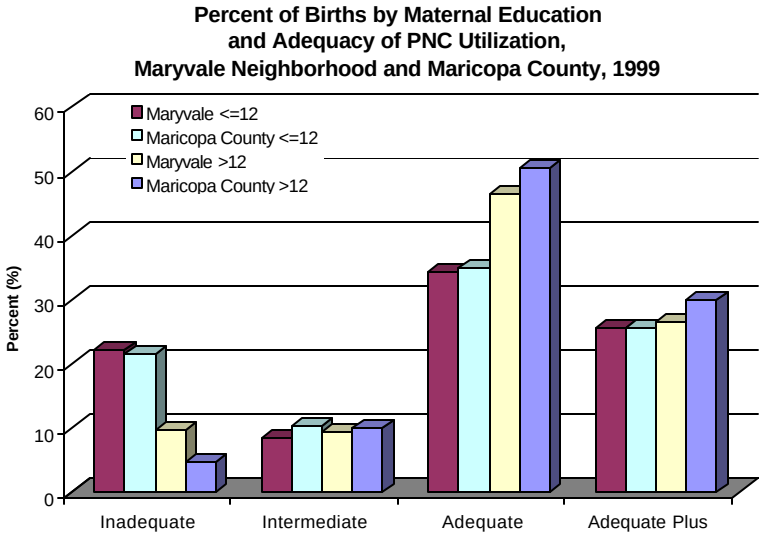
Whites had the highest percentage of mothers receiving first trimester prenatal care in the Maryvale Neighborhood in 1999, followed by African Americans. Neither the Maryvale Neighborhood nor Maricopa County achieved the Healthy People 2000 goal of 90% for first trimester entry into prenatal care.

Adequacy of prenatal care utilization among expectant mothers was determined using the APNCU index [9]. This index characterizes the adequacy of PNC by using the month of initiation and appropriate number of visits depending on the month of PNC initiation and gestational age at birth. The APNCU index does not assess the quality of PNC and does not adjust for risk conditions of the expectant mother; it only assesses PNC utilization.

According to the index, the utilization of PNC in the Maryvale Neighborhood is similar to that in Maricopa County. Mothers were more likely to have adequate or adequate-plus PNC utilization than to have inadequate or intermediate PNC utilization. However, 20.26% of mothers in the Maryvale Neighborhood who gave birth in 1999 showed inadequate prenatal care utilization, compared to 14.56% of Maricopa County mothers. The percentage of mothers in the Maryvale Neighborhood whose PNC utilization was inadequate and intermediate decreased from 1996 to 1999. The percent of mothers in the adequate-plus prenatal care category also showed a decreasing trend from 1996 to 1999.



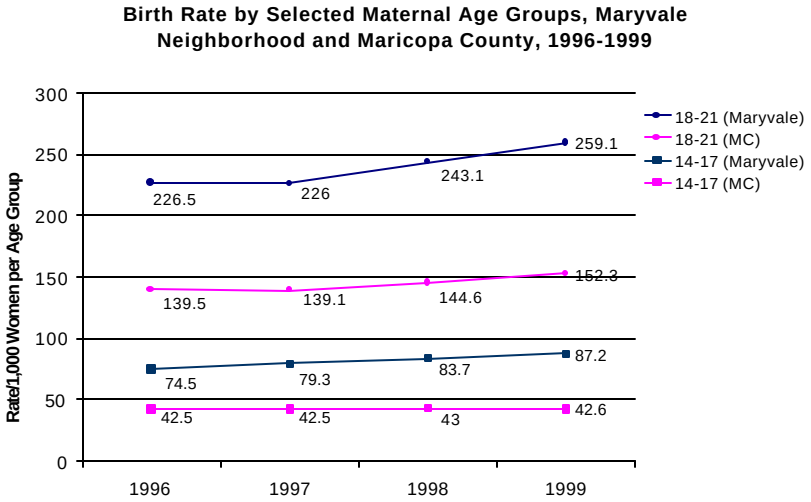
Mothers with 12 or less years of education were more likely to have inadequately utilized PNC, and mothers with more than 12 years of education or more were more likely to have adequately utilized PNC. This pattern is true for both the Maryvale Neighborhood and Maricopa County.



TEEN BIRTHS

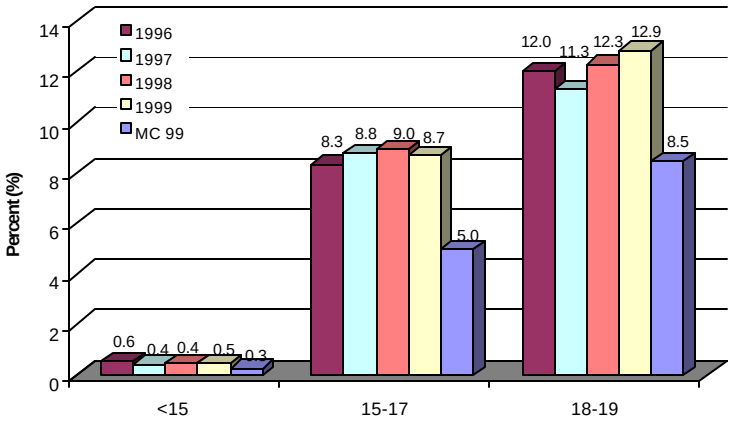
Teen birth rates were calculated for females 17 years of age and younger and females 18 to 21 years of age, because these were the only young female population age groups available by census tract from the 1995 special census of Maricopa County. The Maryvale Neighborhood had higher teenage birth rates than Maricopa County among women 17 years of age and younger and also among the 18 to 21 age group. In 1999, the birth rate in the Maryvale Neighborhood (87.2/1,000) was greater than Maricopa County (42.6/1,000) by more than two-fold. The birth rates for teenage women in both areas increased since 1996.

See Appendix A, Map 8 for percent of teenage births by census tract.

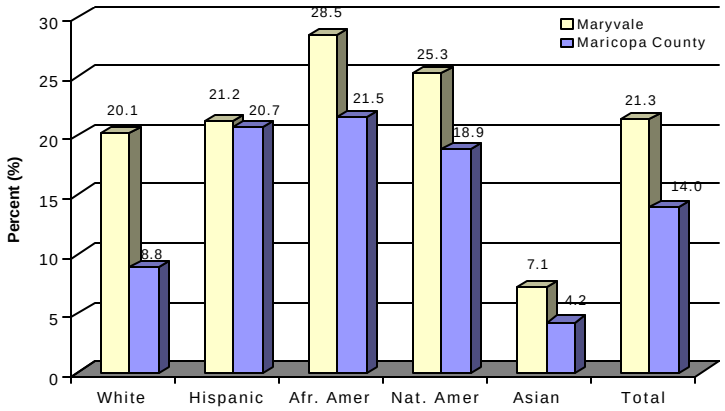


A larger proportion of births to teenage mothers occurred in the Maryvale Neighborhood (21.3%) than in Maricopa County (14%). Mothers 18-19 had the highest percentage of teenage births followed by 15-17 year olds in both the Maryvale Neighborhood and Maricopa County. The Maryvale Neighborhood, however, had a higher percentage of teenage births than the county. See graph on next page.

Percent of Births by Teen Age Group, Maryvale Neighborhood 1996-1999, and Maricopa County 1999



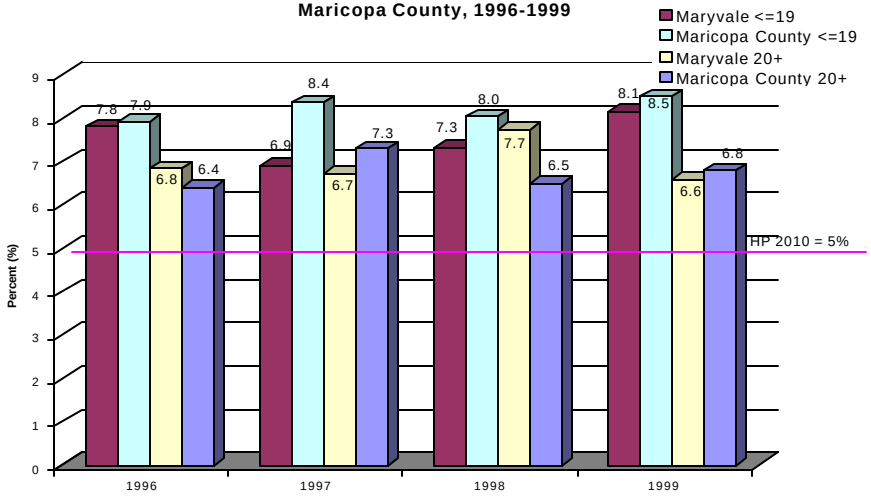
Percent of Births to Mothers 19 and Younger by Maternal Race/Ethnicity, Maryvale Neighborhood and Maricopa County, 1996-1999



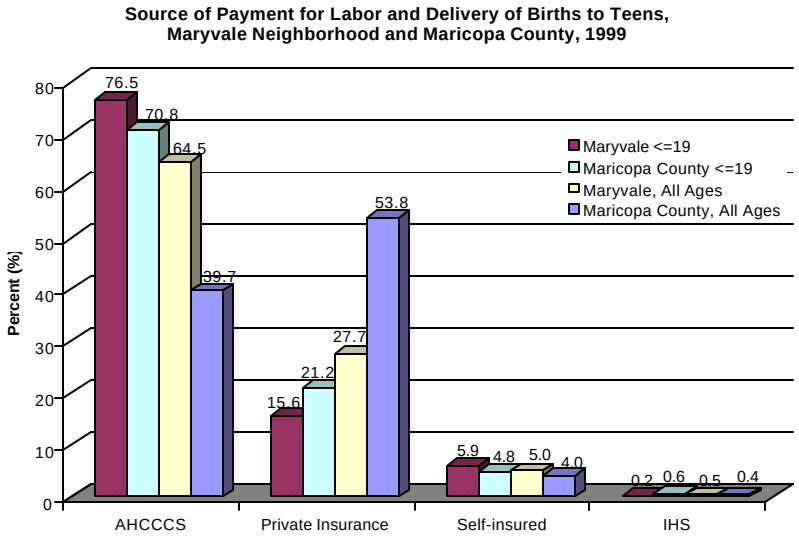
African Americans had the highest percentage of births to mothers 19 and younger in the Maryvale Neighborhood (28.5%) and Maricopa County (21.5%), followed by Native Americans (25.3%) in the Maryvale Neighborhood and Hispanics (20.7%) in the county.

The proportion of LBW births to teenage mothers (less than 20 years of age) was higher in Maricopa County than in the Maryvale Neighborhood from 1996 to 1999. The percentage of LBW births was higher among teenage mothers than mothers 20 years of age and older in all years except 1998.

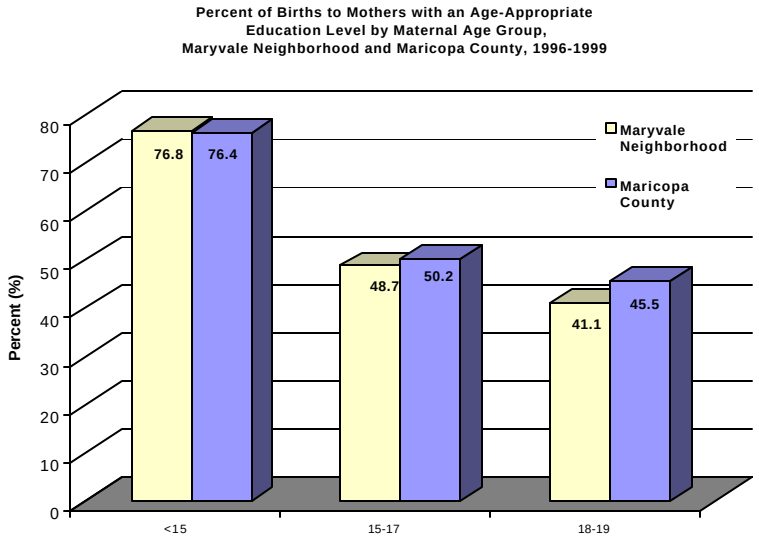
Proportion of LBW (<2,500 g) Births to Teens (<=19) and Mothers 20 and Older by Year, Maryvale Neighborhood and Maricopa County, 1996-1999



In 1999, the highest source of payment for delivery of births to teenage mothers was AHCCCS, both in the Maryvale Neighborhood (76.5%) and in Maricopa County (70.8%). The second largest source of payment was private insurance, which was higher in Maricopa County (21.2%) than the Maryvale Neighborhood (15.6%).



All births were dichotomized into two categories: delivered to a mother with an age-appropriate education level or not [10]. An age-appropriate education level for an 11-year-old was fourth grade (or higher) because the majority of people who are 11 years old are in fourth or fifth grade. The age-appropriate education level increased by one year for each year of age increase, such that the appropriate education level for mothers 18 or more years of age was twelth grade[5]. See graph on the next page.



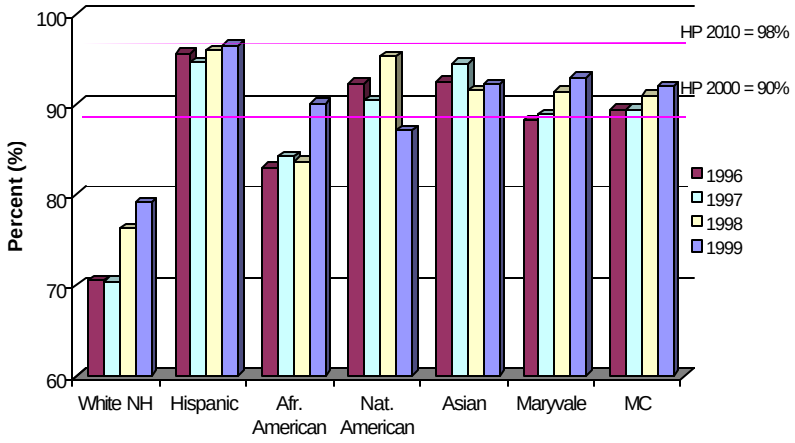
The percent of births to mothers with an age-appropriate education level was the same or higher in Maricopa County than the Maryvale Neighborhood for all age groups. Mothers less than 15 years of age had the highest percent of births to mothers with an age-appropriate education level in the Maryvale Neighborhood (76.8%) and in the county (76.4%).

SUBSTANCE USE

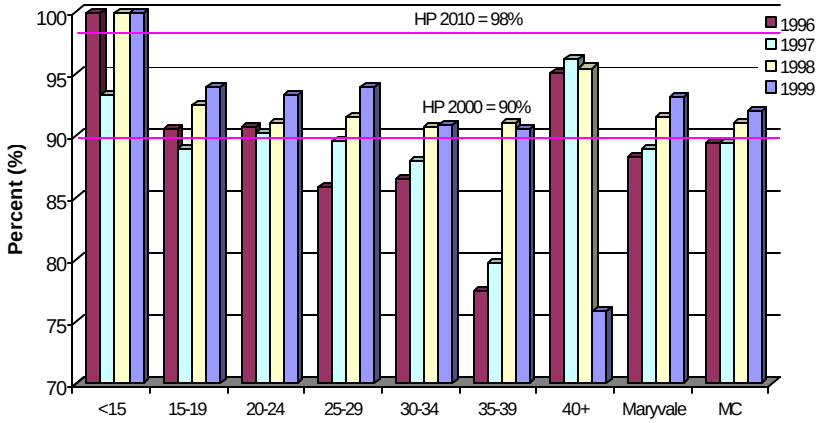
In 1999, the percentage of women abstaining from tobacco use was higher in the Maryvale Neighborhood than in the county (93.1% and 92.1%, respectively). The number of mothers abstaining from tobacco use for all age groups increased from 1996 to 1999 in both the Maryvale Neighborhood and Maricopa County.

The average percentage of women abstaining from tobacco use during pregnancy for the four years was highest among Hispanics (96.6%) and lowest among Whites (79.2%). Only Whites and Native Americans failed to meet the Healthy People 2000 objective of 90% tobacco abstinence in 1999.

Prevalence of Tobacco Abstinence by Maternal Race/Ethnicity, Maryvale Neighborhood 1996-1999

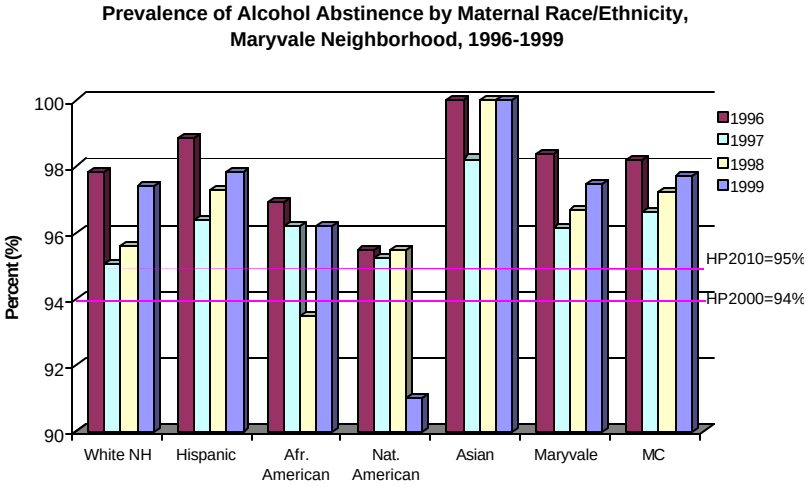


Prevalence of Tobacco Abstinence by Maternal Age Group, Maryvale Neighborhood 1996-1999

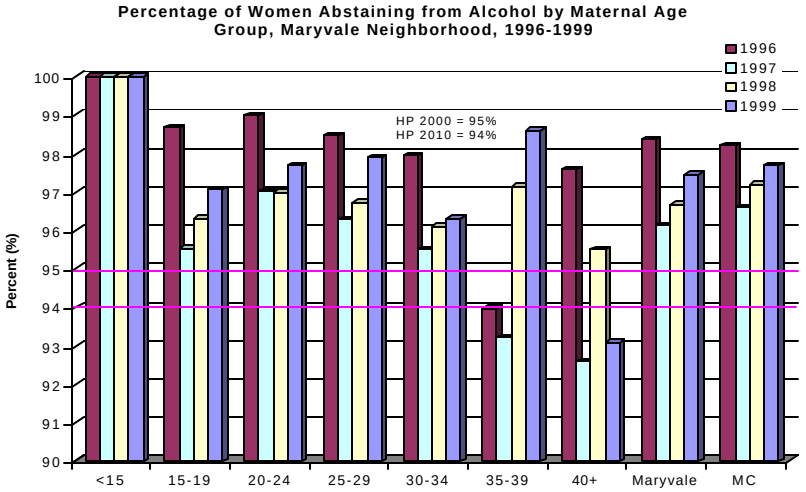


Except women over the age of 39 for which there were only 29 births, all age groups met the HP 2000 objective (90% abstaining) for tobacco use in 1999. See Appendix A, Map 9 for the prevalence of tobacco abstinence by census tract.

In 1999, the percentage of pregnant women abstaining from alcohol consumption in the Maryvale Neighborhood (97.5%) and Maricopa County (97.7%) was comparable. All racial/ethnic groups met the HP 2010 objective for abstinence from alcohol except Native Americans in 1999. Native Americans showed a decrease in alcohol abstinence from 95.5% in 1998 to 91% in 1999. This decrease may be a reporting artifact.



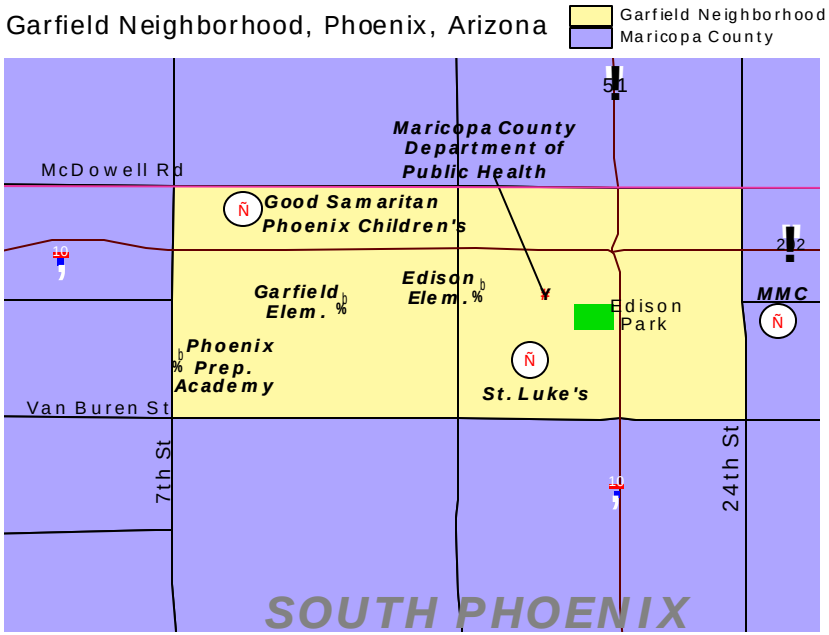
Since 1997, the percentage of women abstaining from alcohol consumption during pregnancy steadily increased for women of all age groups in the Maryvale Neighborhood and the county. See Appendix A, Map 10 for the prevalence of alcohol abstinence by census tract from 1996 to 1999.



Section VII. Garfield Area Analysis

INTRODUCTION

The Garfield Neighborhood of Phoenix, Arizona consists of 1990 census tracts 1132 and 1133 (2000 census, tracts 1132.01, 1132.02, 1132.03, and 1133), located immediately east of downtown Phoenix. The area is bounded by McDowell Road on the north, Van Buren Street on the south, 7th Street on the west, and 24th Street on the east. The Garfield community is a historic district in the Phoenix metropolitan area [21]. See Appendix A, Map 3 for a larger map of the Garfield Neighborhood and where it lies within the county.



In 1999, the Garfield Neighborhood was identified as a 'pocket of need' within Maricopa County. During the summer of 2001, the Garfield Neighborhood Association formed a Health and Human Service Committee to strategize interventions for the health needs of their community. Data from the Maricopa County Department of Public Health and students of Arizona State University are being used to guide this planning process. This collaboration includes representatives from the city of Phoenix, Banner Health, Garfield Elementary School, Phoenix Children's Hospital, Maricopa County Department of Public Health, ASU College of Nursing, a private physician, and community members. The vision is to have low- or no-cost culturally sensitive primary care services located within the neighborhood. This service would be linked to a host of other social and specialty-care services outside of the neighborhood and would have an outreach component to ensure the utilization of services. This needs assessment is intended to provide the Garfield Neighborhood with the information necessary to allow the community to have the biggest impact on health disparities within its borders.

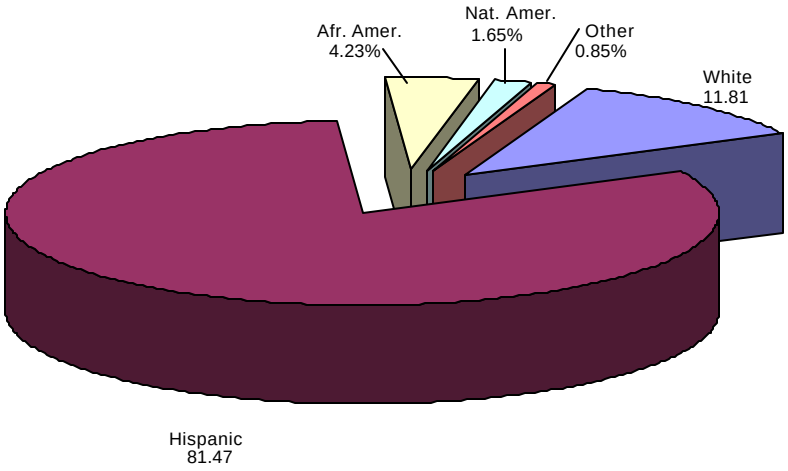
Due to relatively small numbers of births within the Garfield Neighborhood, data are often presented as four-year averages (1996-1999) to provide a larger sample. The larger sample provides more meaningful information, which can then be more accurately compared to Maricopa County and other geographic areas. Nevertheless, use caution when examining and interpreting the results because some percentages and/or rates may be based on numbers too small to be meaningful. The numbers used for each graph appear in tables in the "Maricopa

County Maternal and Child Health Needs Assessment 2001: Supplemental Data Tables".

SOCIAL AND DEMOGRAPHIC PROFILE

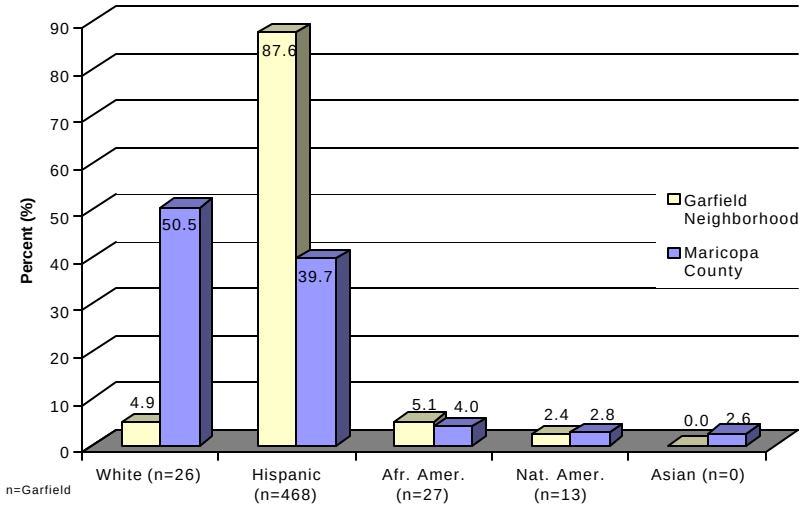
There were 14,978 people living in the Garfield Neighborhood according to the 1995 special census of Maricopa County [11], representing 0.6% of the county population; 48.28% were female. In 1995, Hispanics made up the largest percentage of the Garfield population, accounting for 81.47%, followed by Whites (11.81%). This contrasted the racial/ethnic distribution of the county population, which was predominantly White (71.91%); Hispanics constituted 20.48% of Maricopa County's population. Broken down by age group, the Garfield Neighborhood had a larger proportion of young people (21 years of age and younger) compared to the county (data not shown).

Total Population Distribution by Race/Ethncity, Garfield Neighborhood, 1995 Special Census of Maricopa County



In 1999, there were 534 births in the Garfield Neighborhood, a 2.7% decrease from 1998. Maricopa County experienced a 4.5% increase in the number of births over the same period. Similar to the distribution pattern of the entire population, Hispanics made up the largest proportion of mothers in the Garfield Neighborhood (87.64%; 468 births in 1999). 4.87% of births were to White mothers (26 births in 1999); 5.06% to African American mothers (27 births in 1999); and 2.43% to Native American mothers (13 births in 1999). In Maricopa County, Whites made up the largest percentage of mothers (50.47%) followed by Hispanics (39.72%). Because of the small number of births, Asian mothers in the Garfield Neighborhood are frequently not depicted in graphs (2 births from 1996 to 1999).

Percent Distribution of Births by Maternal Race/Ethnicity, Garfield Neighborhood and Maricopa County, 1999

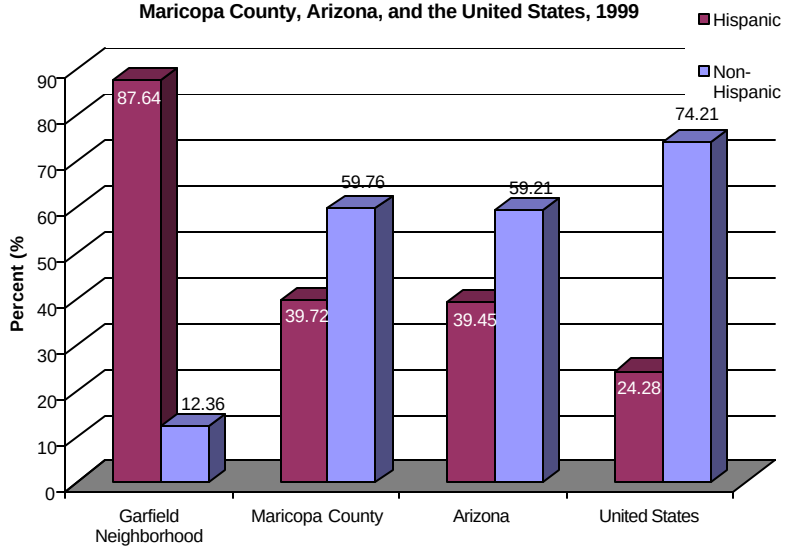


Birth rates by race/ethnicity could not be calculated because census tract-level data of the population by race/ethnicity were not available. However, there was a smaller percentage of White mothers than Whites in the entire population in both the Garfield Neighborhood and Maricopa County, implying a lower birth rate. Similarly, there was a larger percentage of Hispanic mothers than Hispanics in the entire population, implying a higher birth rate.

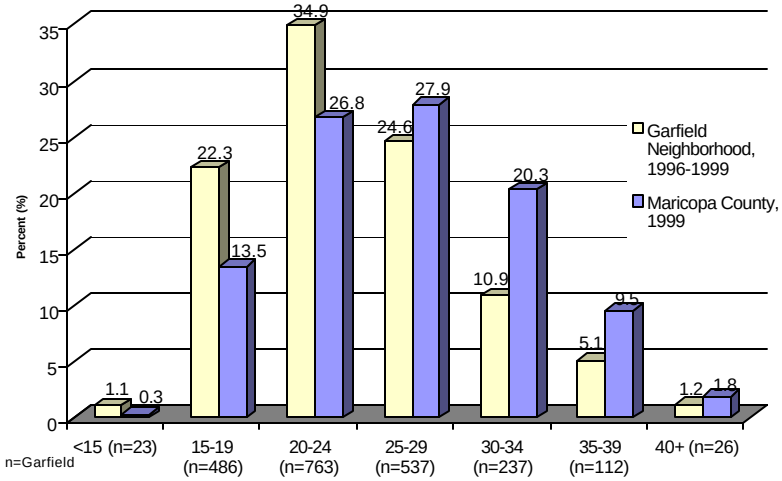
Notable is the difference in the ethnic distribution of mothers in the Garfield Neighborhood from all other geographic areas. As previously noted, Hispanics made up the largest percentage of mothers in the Garfield Neighborhood (87.64%; 468 births) in 1999. However, in the Maricopa County, Arizona, and United States populations, Non-Hispanics made up the largest percentage of mothers (59.76%, 59.21%, and 74.21% in 1999, respectively).

Summing births from 1996 through 1999, the highest proportion of births in the Garfield Neighborhood was to mothers 20 to 24 years of age (34.94%; 763 births) followed by mothers 25 to 29 years of age (24.59%; 537 births). In 1999, the highest proportion of births in Maricopa County was to mothers 25 to 29 years of age (27.85%; 53,720 births) followed by mothers 20 to 24 years of age (26.75%; 52,280 births). As in the population distribution of the Garfield Neighborhood, there was a larger percentage of mothers in younger age groups in the Garfield Neighborhood than in Maricopa County.

Percent of Births by Hispanic Origin, Garfield Neighborhood, Maricopa County, Arizona, and the United States, 1999



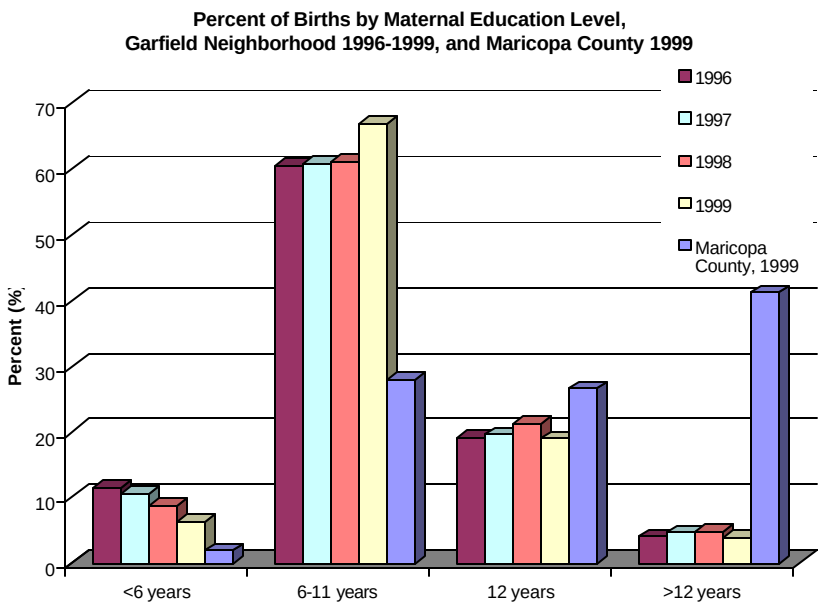
Percent Distribution of Births by Maternal Age Group, Garfield Neighborhood, 1996-1999, and Maricopa County, 1999

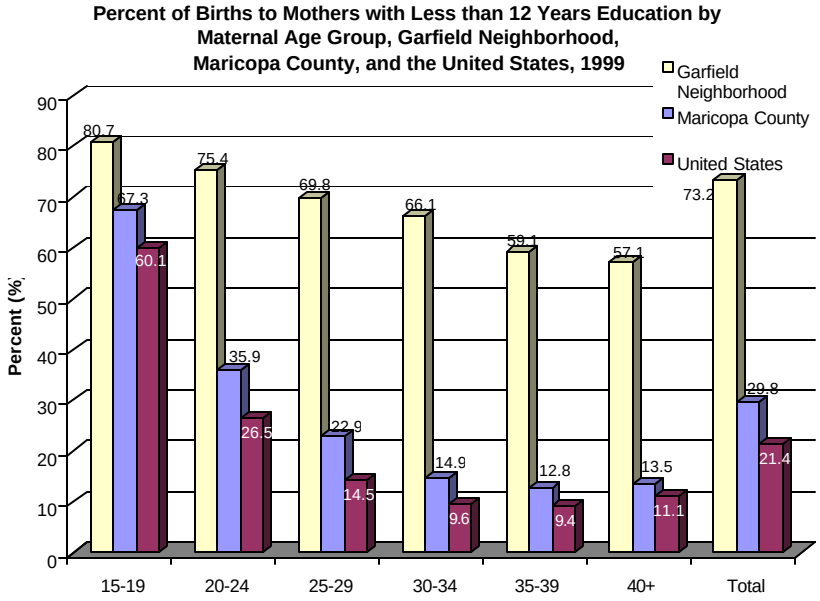


The Garfield Neighborhood consistently had a higher percentage of mothers who did not finish high school (less than 12 years of education) compared to Maricopa County (71.57% and 29.06% respectively, 1996-1999). During the years 1996 to 1999, the majority of mothers in the Garfield Neighborhood had 6 to 11 years of education (62.27%; 1360 births); countywide, the highest percentage of births by education was to mothers with more than 12 years of education (41.11%).

African Americans and Hispanics had the largest proportion of mothers with less than 12 years of education in the Garfield Neighborhood. White and Native American mothers were more likely to achieve 12 or more years of education (data not shown).

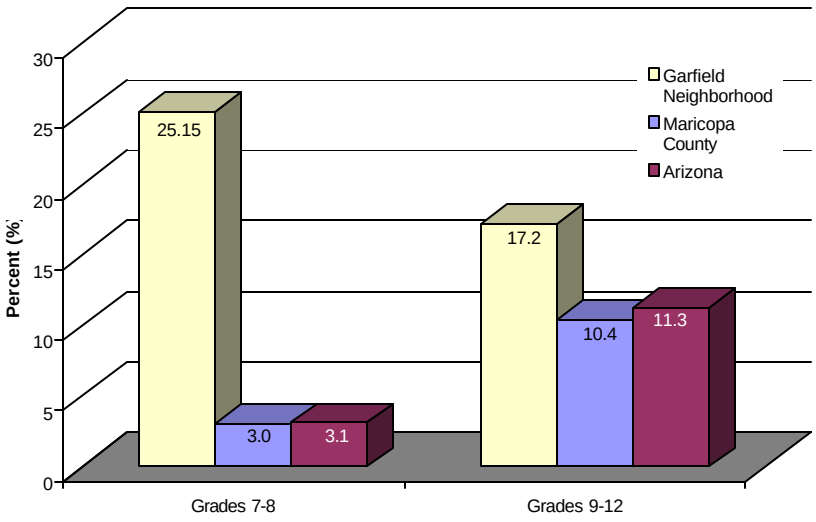
Across all age groups, mothers in the Garfield Neighborhood were less likely to have finished high school, compared to Maricopa County and the United States.





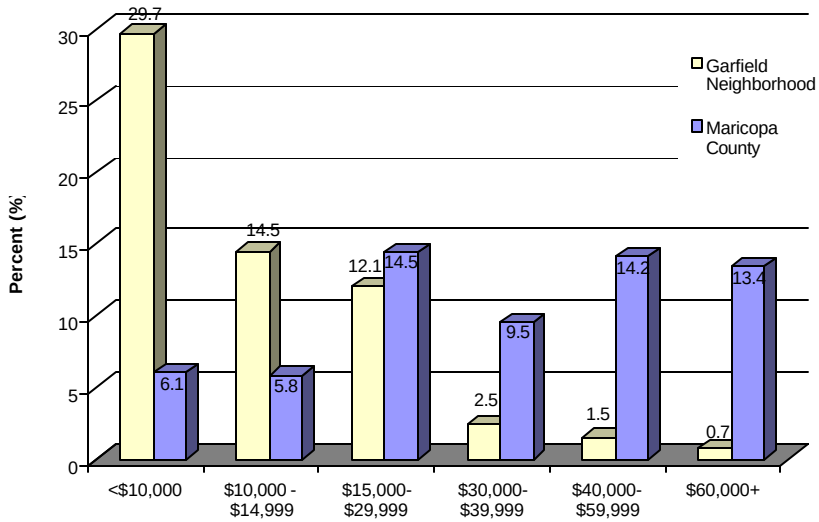
The Garfield Neighborhood dropout rate for grades 7 and 8 consisted of the averaged dropout rates of the two middle schools that lie within the Garfield Neighborhood: Alternative Learning Center and Phoenix Elementary Preparatory Academy[19]. The dropout rate for grades 9 to 12 consisted of the dropout rates of three schools attended by Garfield residents (Camelback, South Mountain, and North High Schools) and the one high school within the Garfield Neighborhood (Summit High School). Dropout rates for schools serving the Garfield Neighborhood [21] were approximately 8 times those of the county and state [19] for grades 7 and 8, and 1.5 times for grades 9 to 12.

Dropout Rates, Grades 7-8 and 9-12, Garfield Neighborhood, Maricopa County, and Arizona, 1999-2000 School Year

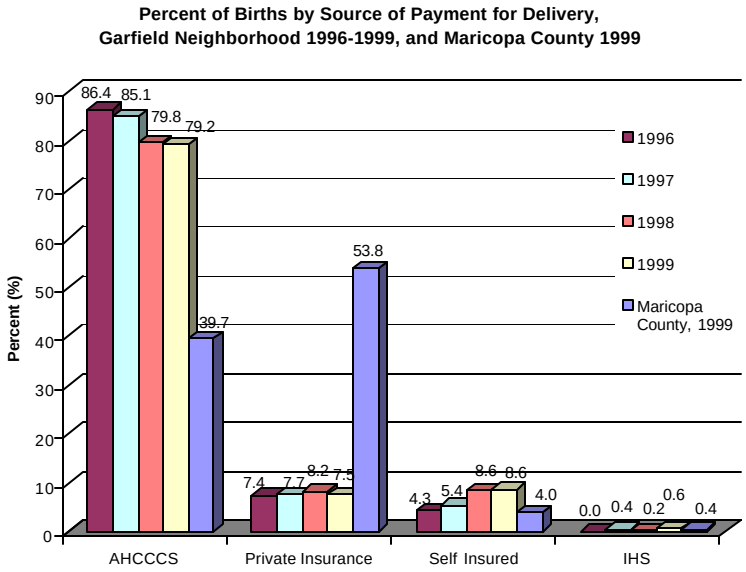


4,140 households were recorded in the Garfield Neighborhood in 1995 [11], compared to 957,730 in Maricopa County. The highest percentage of the Garfield Neighborhood population earned less than $10,000 per household (29.66%) followed by $10,000 to $14,999 (14.47%). In Maricopa County, the highest percentage of the population earned $15,000 to $29,999 (14.46%) followed by $40,000 to $59,999 (14.16%). Only 0.72% of the households in the Garfield Neighborhood earned $60,000 or more, compared to 13.43% of the households in Maricopa County. In the Garfield Neighborhood, 44.13% of households earned less than $15,000, while in Maricopa County, only 11.94% of households earned less than $15,000.

Percent Distribution of Household Income, Garfield Neighborhood and Maricopa County, 1995



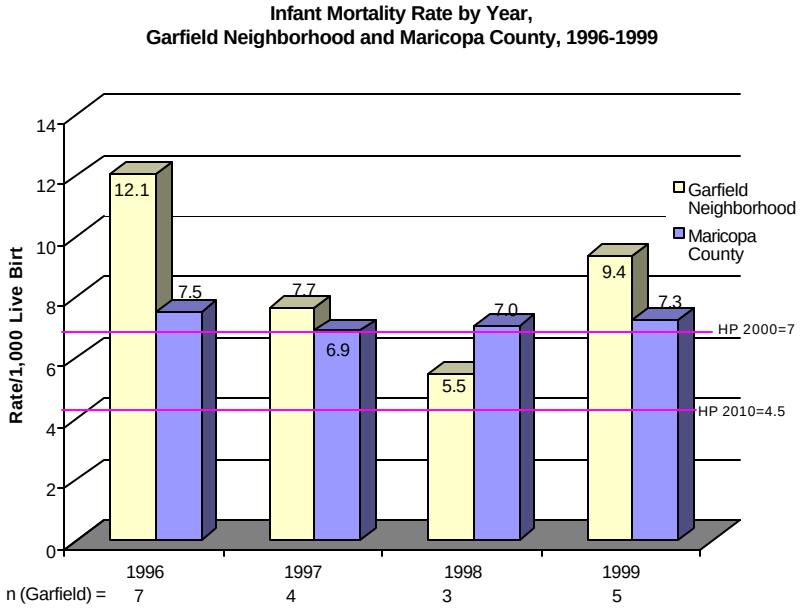
A consistently higher percentage of births were paid for by AHCCCS in the Garfield Neighborhood (79.21% in 1999; 423 births) than in Maricopa County (39.67% in 1999; 20,446 births). While the percent of births paid for by AHCCCS in the Garfield Neighborhood decreased from 1996 to 1999, the percent of self-pay births increased.



During the period 1996 to 1999, both census tracts comprising the Garfield Neighborhood fell into the highest category of the percent of births paid for by AHCCCS (82.37%, 1,333 births in census tract 1132 and 83.08%, 851 births in census tract 1133). The Scottsdale/Paradise Valley, East Valley, and Sun Cities areas made up the majority of the lowest category of births paid for by AHCCCS (less than 35.0%). Appendix A, Map 4 details the percent of births paid for by AHCCCS, by census tract.

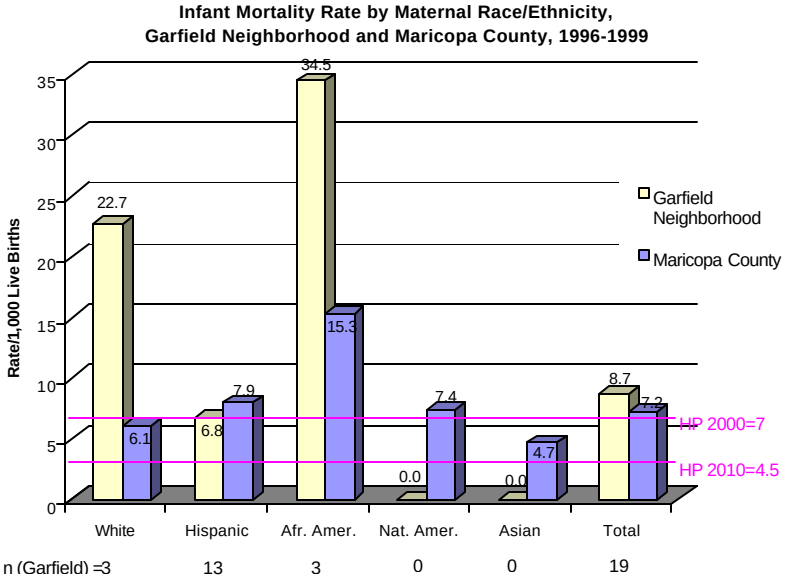
INFANT MORTALITY RATES

Because of the small number of infant deaths, the majority of data presented are an average of the four years (1996-1999). All infant mortality rates (IMRs) are per 1,000 live births. From 1996 to 1999, there were 19 infant deaths in the Garfield Neighborhood, yielding an IMR of 8.70 per 1,000 live births. 10 were neonatal deaths (less than 28 days after delivery), yielding a neonatal mortality rate (NMR) of 4.58, and 9 were post-neonatal, yielding a post-neonatal mortality rate (PNMR) of 4.12. In contrast to the other years presented, in 1998, the Garfield Neighborhood had a lower IMR than Maricopa County.

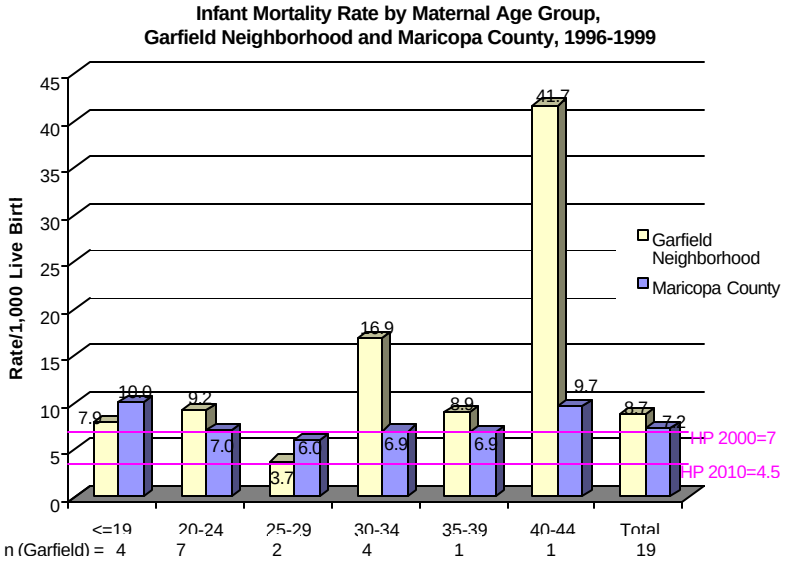


During the period 1996 to 1999, the census tracts that made up the Garfield Neighborhood were not in the highest IMR category; however, the Garfield Neighborhood did not meet the HP 2000 nor HP 2010 objectives for infant mortality. The census tracts had IMRs of 7.50 (census tract 1132; 851 births and 10 deaths) and 10.58 (census tract 1133; 1,333 births and 9 deaths). See Appendix A, Map 5 for IMR by census tract.

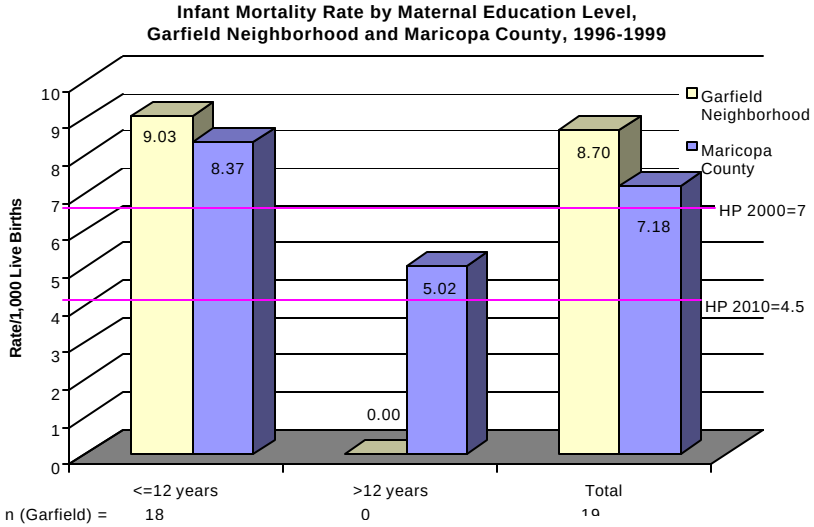
African Americans had the highest IMR in both the Garfield Neighborhood (34.48) and Maricopa County (15.31), followed in the Garfield Neighborhood by Whites (22.73) and in Maricopa County by Hispanics (7.94). It should be noted that the IMR for Whites and African Americans are highly unstable, due to small numbers of infant deaths.



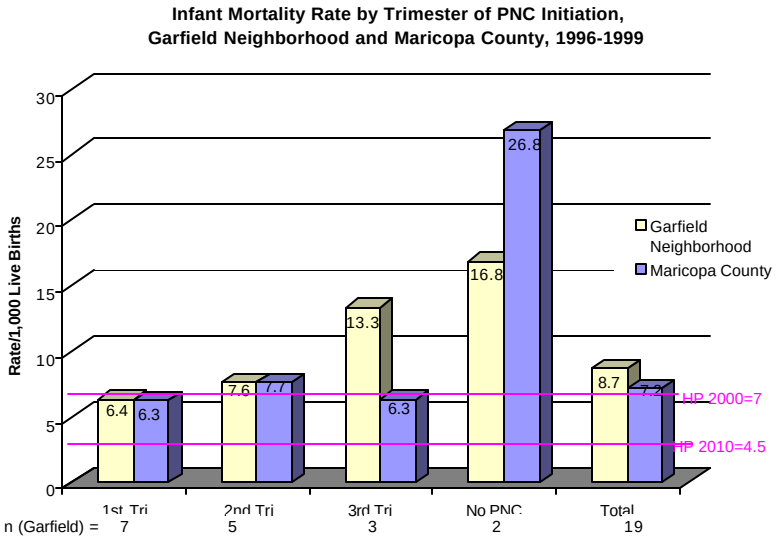
Teenage mothers (19 years of age and younger) in the Garfield Neighborhood had a lower IMR (7.86; 4 deaths) than teenage mothers in Maricopa County (10.01; 272 deaths). Also, mothers 25 to 29 years of age in the Garfield Neighborhood had a lower IMR (3.72; 2 deaths) than mothers of the same age group in Maricopa County (6.03; 324 deaths). The IMR for mothers 40 to 44 years of age is unstable because of small numbers of both infant births (24) and deaths (1).



In the Garfield Neighborhood, mothers with a high school education or less had an IMR of 9.03 (1996-1999). There were no infant deaths in the Garfield Neighborhood among births to mothers who had more than 12 years of education, but the number of births was small (94).

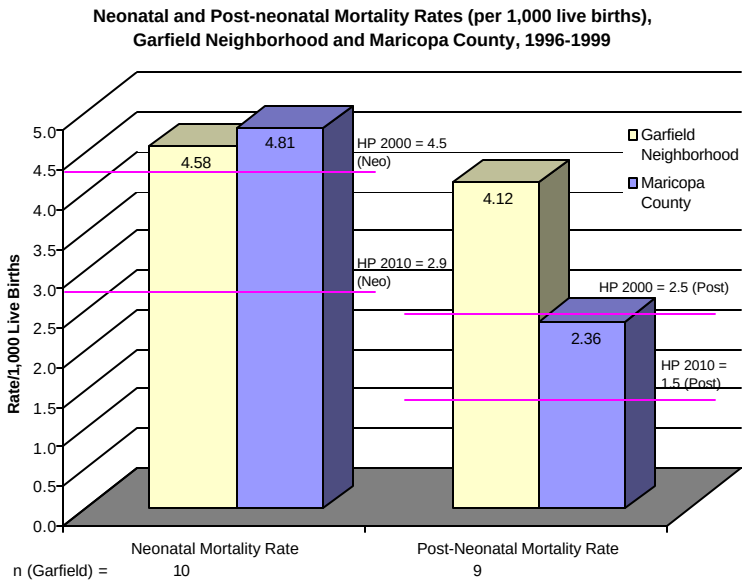


Mothers who received no prenatal care had the highest IMR in both the Garfield Neighborhood (16.81) and Maricopa County (26.83).



Whites and African Americans in the Garfield Neighborhood had the highest neonatal and post-neonatal mortality rates. Whites had a rate of 15.15 and 7.58 for neonatal and post-neonatal mortality respectively, while African Americans had rates of 11.49 and 22.99. Countywide, Hispanics and African Americans had the highest rates for both neonatal and post-neonatal mortality (data not shown).

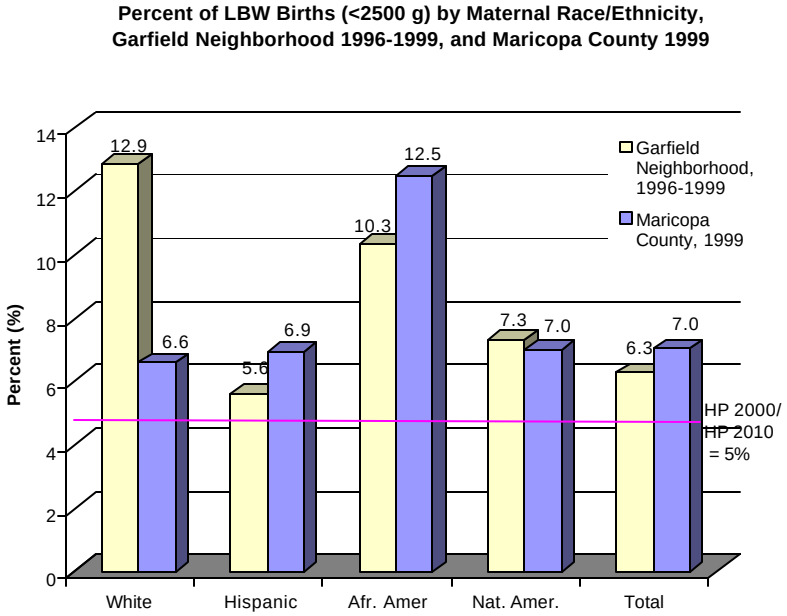
The Garfield Neighborhood had a higher rate of post-neonatal mortality than the county. The distribution of the neonatal mortality rate and post-neonatal mortality rate was contrary to expectations. While neonatal deaths make up two-thirds of infant deaths nationally [12], they made up only 52.63% in the Garfield Neighborhood. This pattern usually indicates social and other risk factors associated with the infant's environment, rather than pregnancy and delivery risk factors.



LOW BIRTH WEIGHT AND PRETERM BIRTHS

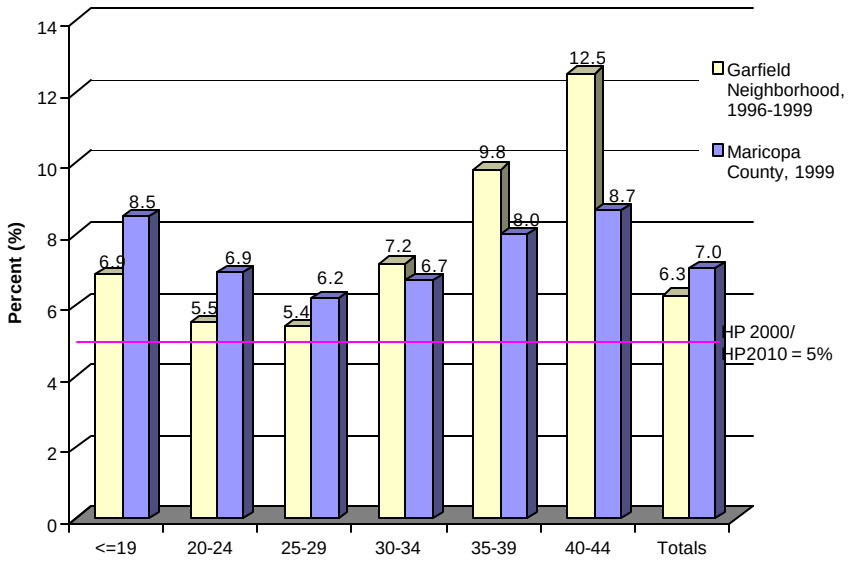
The percent of low birth weight births (less than 2500 grams) in the Garfield Neighborhood has been increasing since 1996. In 1999, 7.49% of births in the Garfield Neighborhood were LBW (40), compared to 7.02% of births in Maricopa County (3,619). A map showing the distribution of LBW births by census tract is found in Appendix A (Map 6).

Whites had the highest percentage of LBW births in 1999 (19.23%). None of the racial/ethnic groups met the HP 2000 and 2010 objective of 5.0%, and the Garfield Neighborhood as a whole has been moving further away from the objective (data not shown).



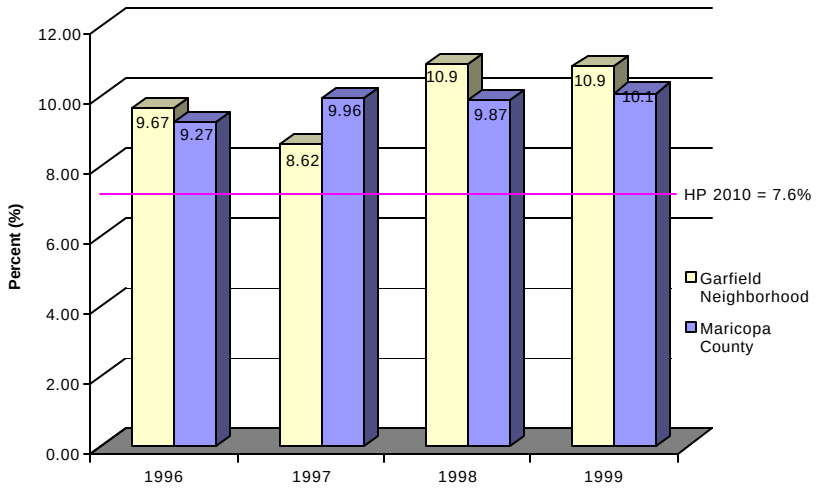
The percentage of LBW births by maternal age follows the typical *j*-shaped curve in the Garfield Neighborhood over the years of 1996 to 1999, with women 30 years of age and older having a higher percentage of LBW births in the Garfield Neighborhood compared to Maricopa County (1999).

Percent of LBW Births (<2500 g) by Maternal Age Group, Garfield Neighborhood 1996-1999, and Maricopa County 1999

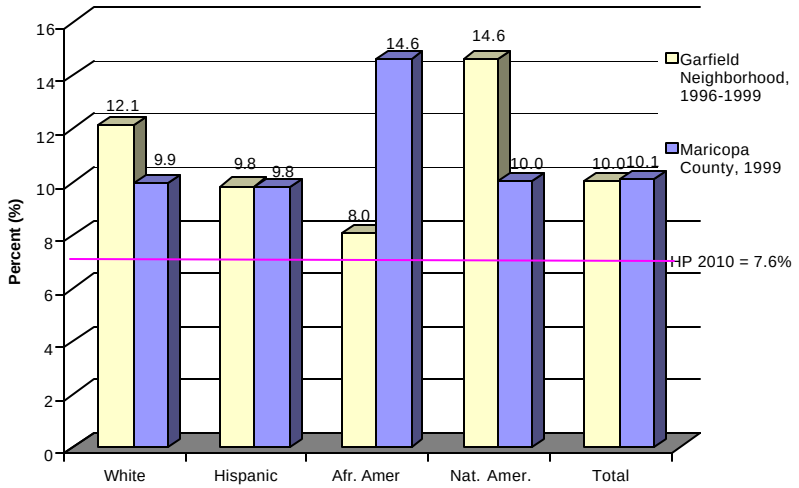


In 1999, 10.86% of the Garfield Neighborhood births were preterm (58 births); 10.08% of Maricopa County births were preterm (5197 births). The percentage of preterm births (less than 37 weeks of gestation) in the Garfield Neighborhood was higher than that in the county for three of the four years (1996 to 1999). This is in contrast with the percentage of LBW births, for which the Garfield Neighborhood was higher than the county average for only 1999 (data not shown).

Percent of Preterm Births (<37 Weeks Gestation), Garfield Neighborhood and Maricopa County, 1996-1999



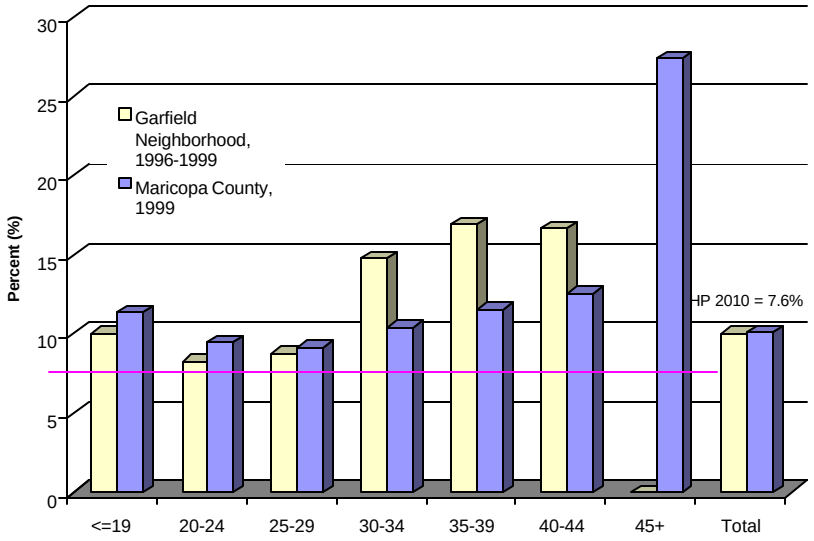
Prevalence of Preterm Births (<37 weeks) by Maternal Race/Ethnicity, Garfield Neighborhood 1996-1999, and Maricopa County 1999



In contrast to the pattern seen among LBW births, Native Americans and Whites delivered the highest percentage of preterm births in the Garfield Neighborhood (preceding graph). African Americans had a lower percentage of preterm births in the Garfield Neighborhood than did Hispanics. However, caution should be exercised in interpreting these results, given that the total numbers of LBW births in each group are low.

Looking at preterm births by maternal age group, the *j*-shaped curve is again evident, with older women delivering a higher percentage of preterm births in both the Garfield Neighborhood and Maricopa County.

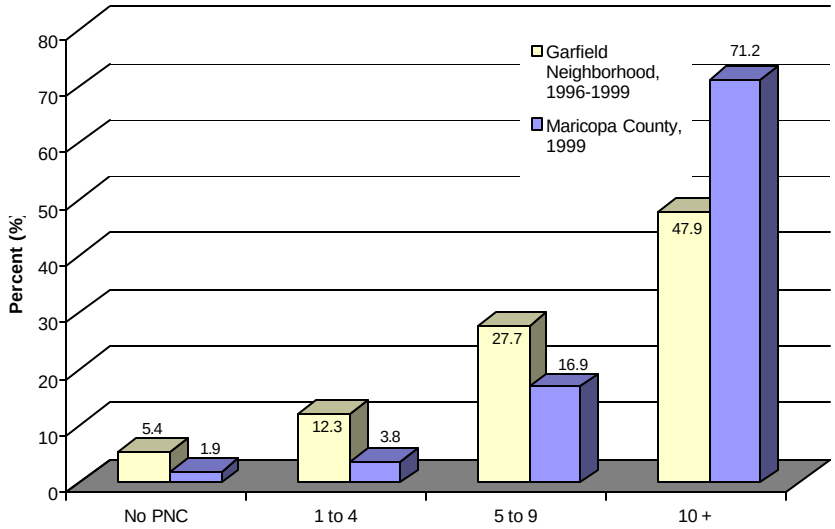
Prevalence of Preterm Births (<37 weeks) by Maternal Age Group, Garfield Neighborhood 1996-1999, and Maricopa County 1999



PRENATAL CARE

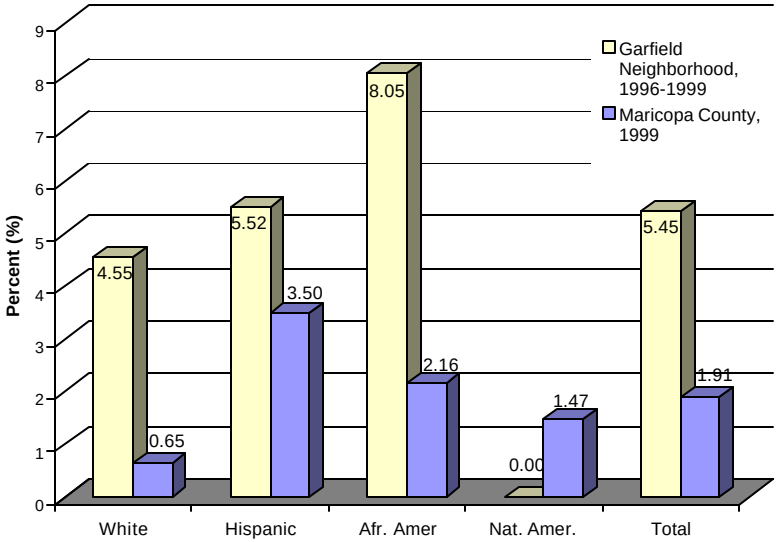
The Garfield Neighborhood had a higher percentage of women delivering with no PNC or fewer than ten visits during 1996 to 1999 (45.42%, 992 births) than Maricopa County did in 1999 (22.61%, 11,653 births). This was true across all age groups and racial ethnic groups (data not shown).

Percent of Mothers Receiving PNC by Number of Visits, Garfield Neighborhood 1996-1999, and Maricopa County 1999



During 1996 to 1999 in the Garfield Neighborhood, African Americans had the highest prevalence of births to women receiving no PNC (8.05%; 7 births), followed by Hispanics (5.52%; 106 births) and Whites (4.55%; 6 births). From 1996 to 1999, all Native American mothers (41) received PNC.

Prevalence of No PNC by Maternal Race/Ethnicity, Garfield Neighborhood 1996-1999, and Maricopa County 1999

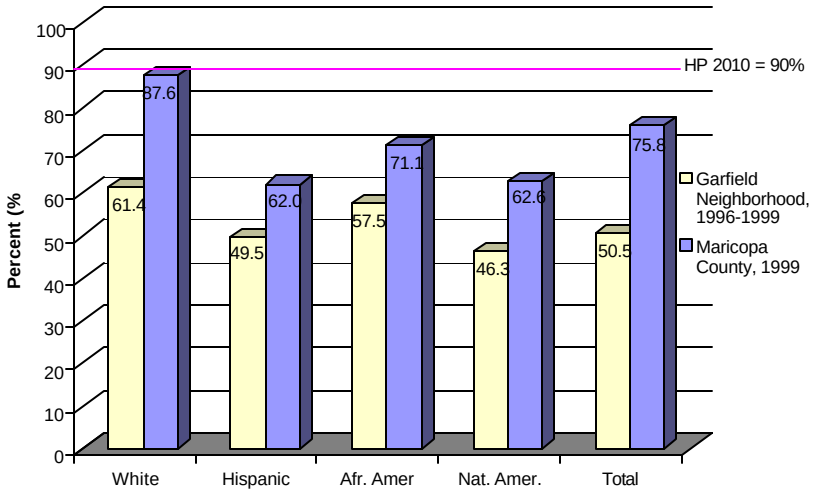


Appendix A, Map 7 depicts the percentage of mothers receiving no PNC by census tract.

In 1999, 48.88% of mothers in the Garfield Neighborhood began PNC during the first trimester (261 mothers), compared to 75.81% of mothers in Maricopa County.

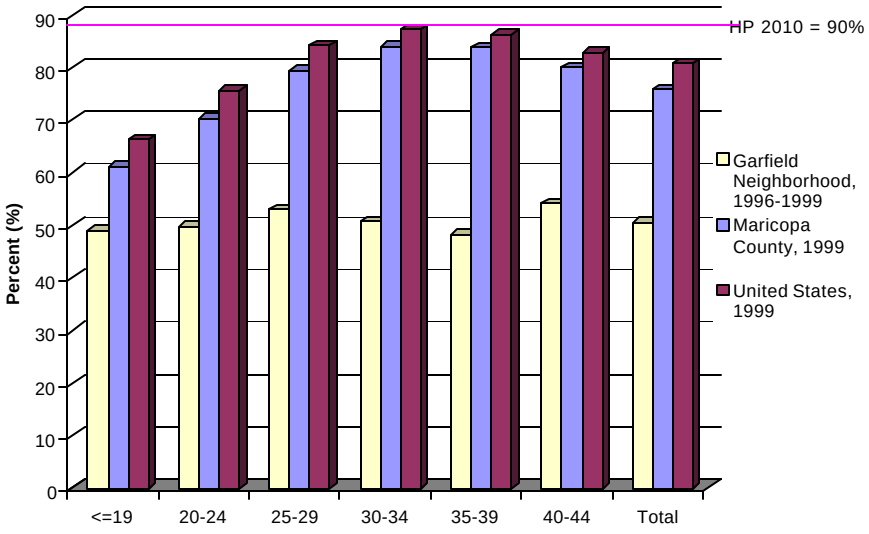
All racial/ethnic groups were below the county average (1999) for the percent of mothers who initiated PNC during the first trimester in the Garfield Neighborhood (1996 to 1999). The HP 2000 and HP 2010 objectives for mothers entering PNC during the first trimester were identical (90%), and no racial/ethnic groups in the Garfield Neighborhood or Maricopa County reached the objective. The closest were Whites in Maricopa County, with 87.58% initiating PNC during the first trimester.

Prevalence of First Trimester PNC Initiation by Maternal Race/Ethnicity, Garfield Neighborhood 1996-1999, and Maricopa County 1999



In contrast with both Maricopa County and the entire United States in 1999, prevalence of first trimester entry into PNC in the Garfield Neighborhood from 1996 to 1999 was stable across age groups. This is unusual, as the pattern normally shows mothers between the ages of 20 and 40 more frequently receiving early PNC than their older and younger counterparts. Over all age groups, mothers in the Garfield Neighborhood were less likely to have received first trimester PNC than Maricopa County or the United States.

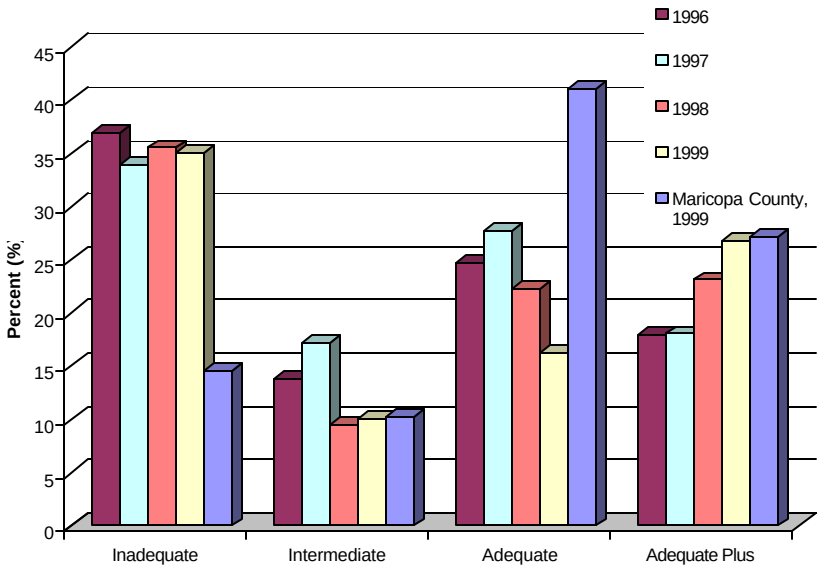
Prevalence of First Trimester PNC Initiation by Maternal Age Group, Garfield Neighborhood 1996-1999, Maricopa County and the United States, 1999



Adequacy of prenatal care utilization (APNCU) among expectant mothers was determined using the APNCU index[9]. This index characterizes the adequacy of PNC by using the month of initiation and appropriate number of visits depending on the month of PNC initiation and gestational age at birth. The APNCU index does not assess the quality of PNC and does not adjust for risk conditions of the expectant mother. It only assesses PNC utilization.

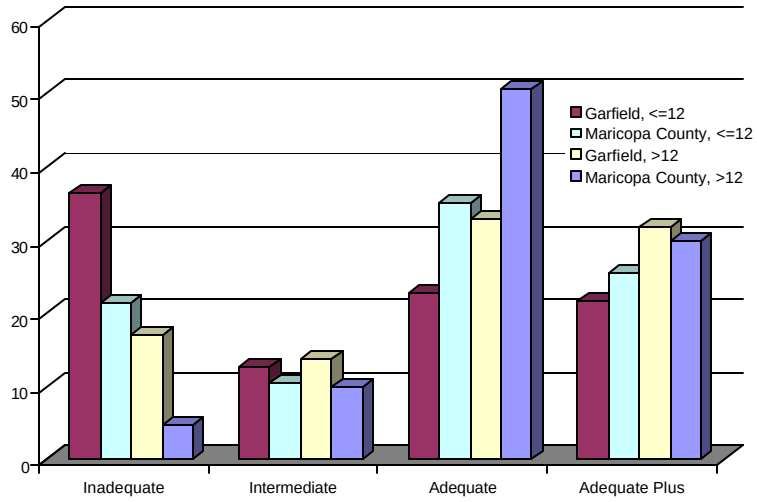
Women in Garfield utilized prenatal care less than women in the county as a whole. During 1999 in Garfield, 44.19% of women received adequate or adequate plus prenatal care, whereas 68% of women in Maricopa County received adequate or adequate plus prenatal care. More than 35% of women in Garfield received inadequate prenatal care. The percent of women receiving adequate plus prenatal care in Garfield increased from 1996 to 1999 to a percentage similar to women residing in Maricopa County.

Percent of Births by Adequacy of PNC Utilization, Garfield Neighborhood 1996-1999, and Maricopa County 1999



Both in the county and in the Garfield Neighborhood, a higher proportion of residents with more than a twelfth grade education received adequate prenatal care than those with a twelfth grade education or less. The difference between mothers with 12 years of education or less and mothers with more than 12 years of education in Garfield was much less than in Maricopa County, due to a small number of births to mothers with more than 12 years of education.

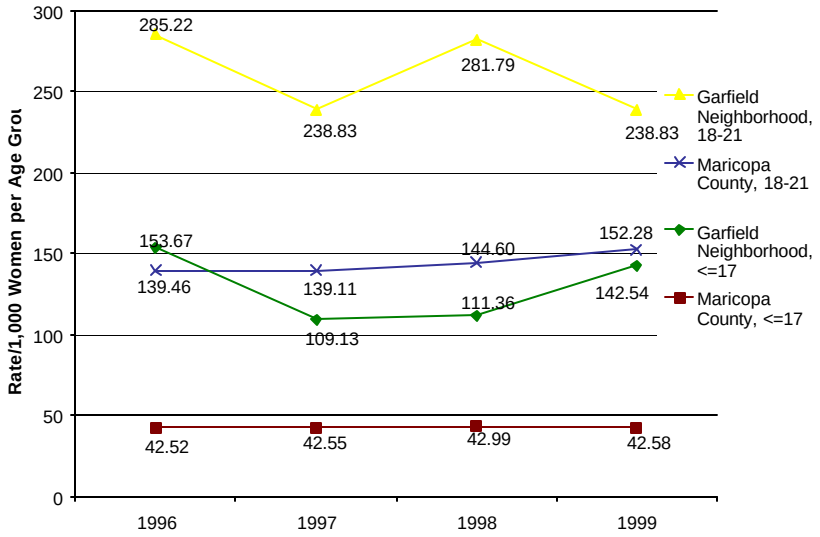
Percent Distribution of Births by Adequacy of PNC Utilization and Education, Garfield Neighborhood and Maricopa County, 1999



TEEN BIRTHS

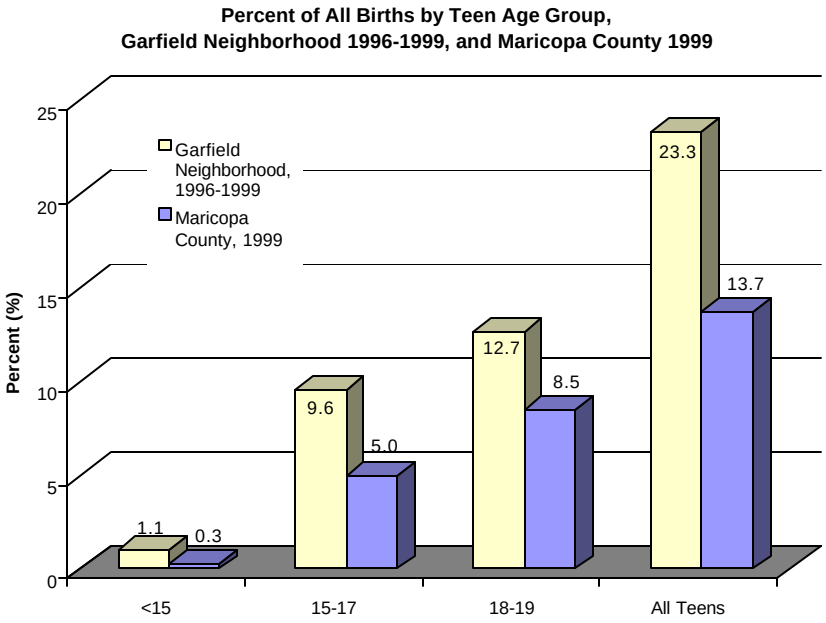
Teen fertility rates were calculated for females 17 years of age and younger and females 18 to 21 years of age, because these were the only young female population age groups available by census tract from the 1995 special census of Maricopa County [11]. The Garfield Neighborhood had higher teenage fertility rates than Maricopa County among women 17 years of age and younger and 18 to 21 years of age. However, the fertility rate for teenage women in the Garfield Neighborhood decreased from 1996 to 1999, while the rate increased among teenage women in the county. This was true for the younger age group as well as the older teens.

Birth Rates by Select Maternal Age Groups, Garfield Neighborhood and Maricopa County, 1996-1999

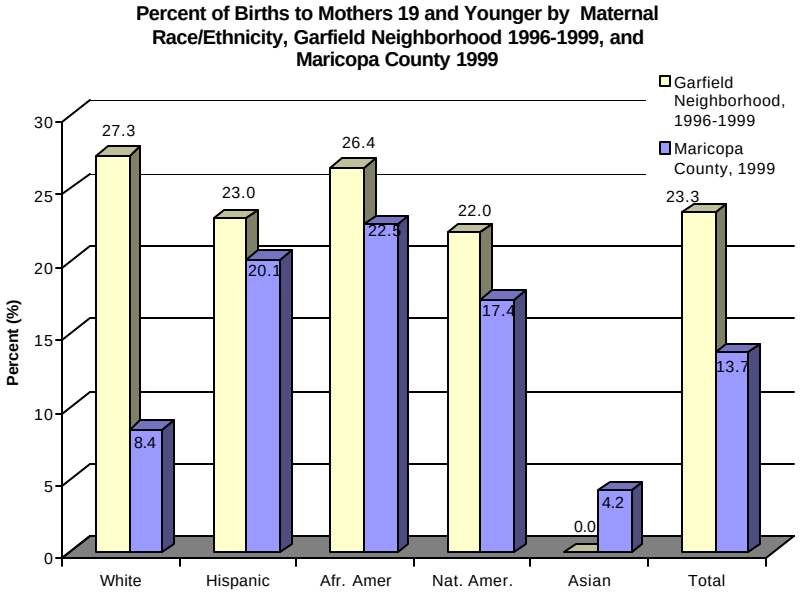


During the time period 1996 to 1999, the Garfield Neighborhood census tracts had 23.56% and 22.91% of births to teens (19 years of age and younger); neighboring census tracts had higher and lower percentages of teen births (Appendix A, Map 8). In all of Maricopa County during the same time period, 13.97% of births were to teens.

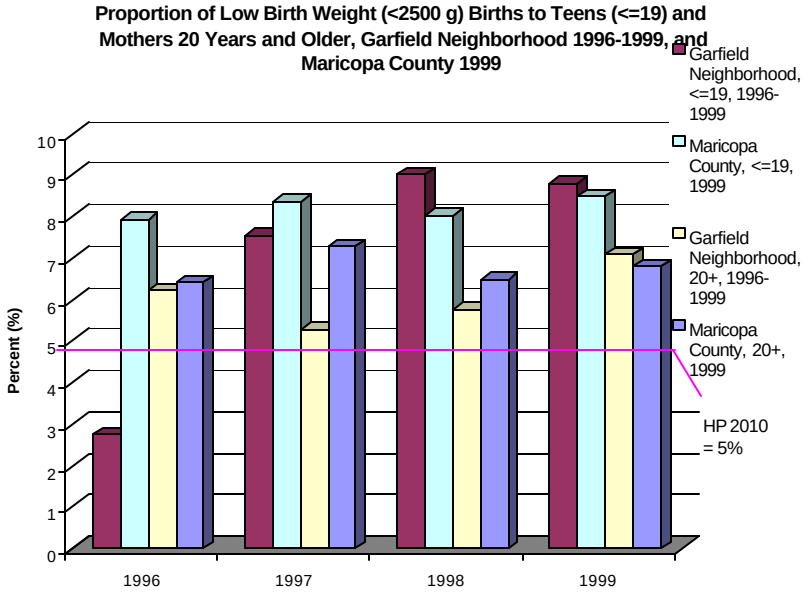
The Garfield Neighborhood had higher percentage of births to teens of all age groups from 1996 to 1999 than Maricopa County in 1999 (see following graph). There was an overall decrease in births to all teens from 1996 to 1999 in the Garfield Neighborhood and in Maricopa County (data not shown).



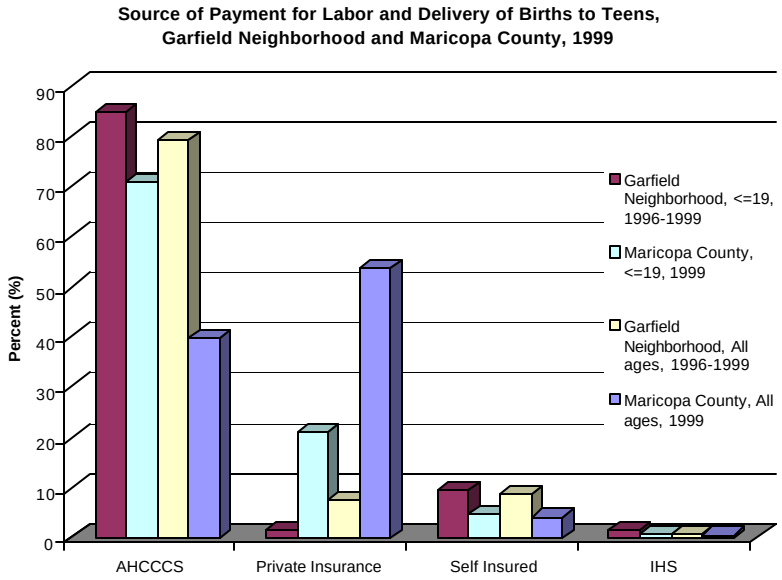
There were higher percentages of teen births to women in all racial/ethnic groups living in the Garfield Neighborhood (1996-1999) when compared to Maricopa County (1999). White females in the Garfield Neighborhood were notably more likely to have a teen birth than white females in Maricopa County.



During 1998 and 1999, there was a higher percentage of LBW births to teenage mothers in the Garfield Neighborhood than to any other age group or geographic region (see following graph).

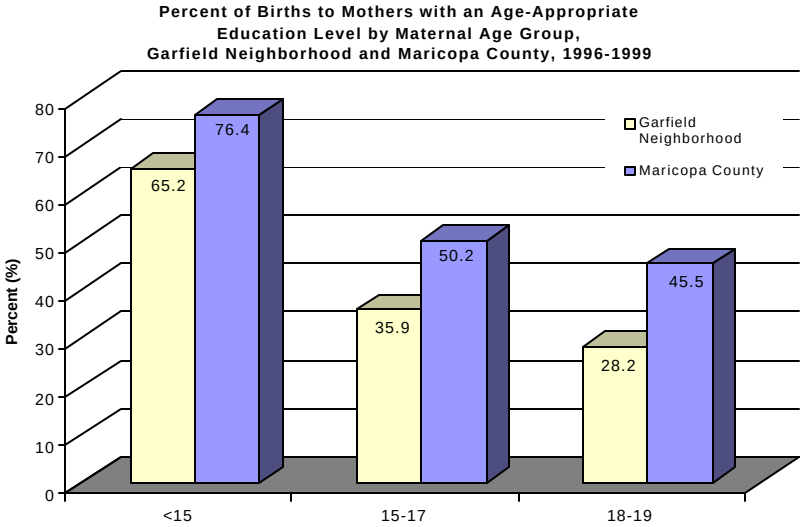


Teens residing in the Garfield Neighborhood (1996-1999) were more likely to have their delivery paid for by AHCCCS than teens residing in the county. in mothers of all ages in both the Garfield Neighborhood and Maricopa County (1999).



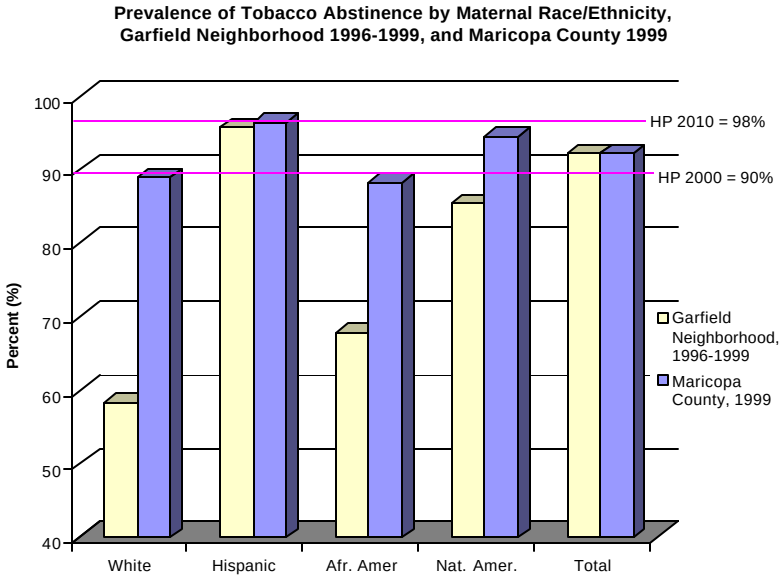
All births were dichotomized into two categories: delivered to a mother with an age-appropriate education level or not [10]. An age-appropriate education level for an 11 year old was fourth grade (or higher) because the majority of people who are 11 years old are in fourth of fifth grade. The age-appropriate education level increased by one year for each year of age increase, such that the appropriate education level for mothers 18 or more years of age was twelfth grade.

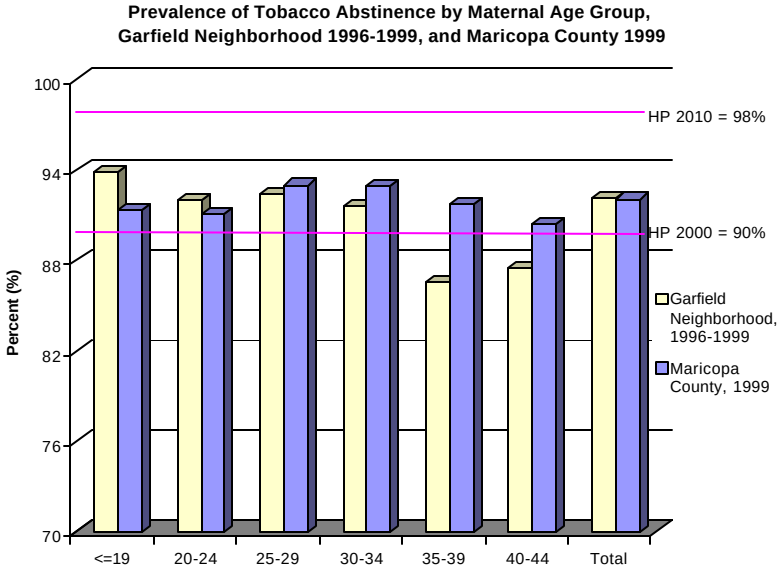
Among teen age groups, mothers 15 years of age and younger had the highest rate of achieving an age-appropriate educational level in both the Garfield Neighborhood (65.22%) and Maricopa County (76.35%). Mothers 18 and 19 years of age had the lowest rate of achieving an age-appropriate educational level in both areas.



SUBSTANCE USE

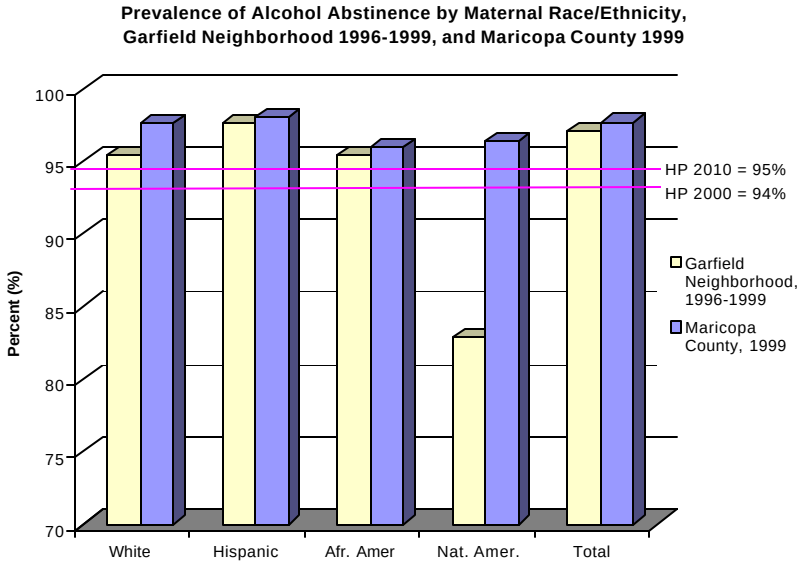
In 1999, 93.26% of Garfield Neighborhood mothers and 92.06% of Maricopa County mothers abstained from tobacco during pregnancy. Hispanic and Native American mothers had the highest rates of tobacco abstinence. During 1996 to 1999, the rate of tobacco abstinence among African American mothers increased in a step-wise fashion (data not shown). Whites in the Garfield Neighborhood had the lowest percentage of mothers abstaining from tobacco.



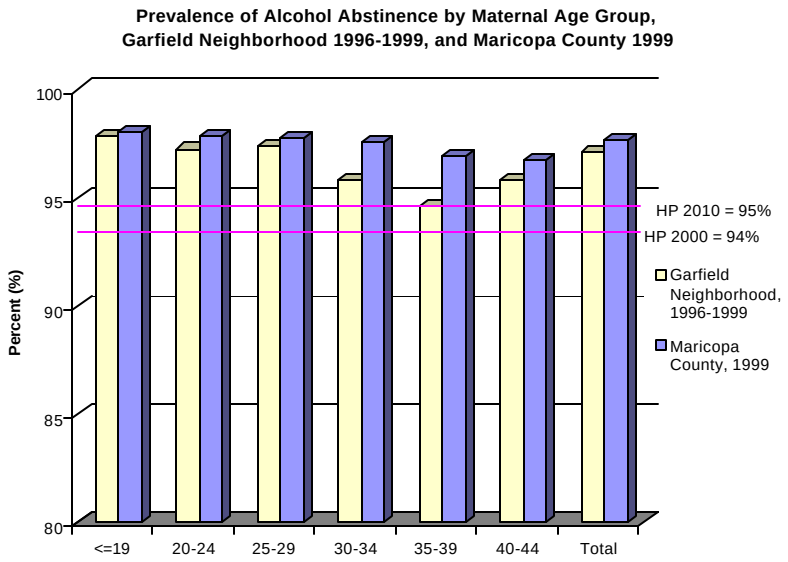


Mothers less than 19 years of age in the Garfield Neighborhood had the highest rate of tobacco abstinence compared to all other age groups in both the Garfield Neighborhood and Maricopa County. Mothers less than 19 years of age in Maricopa County had one of the lowest rates of tobacco abstinence among Maricopa County mothers (see graph on preceding page).

Appendix A, Map 9 shows the percent of mothers who abstained from tobacco during pregnancy by census tract.



In 1999, 98.13% of Garfield Neighborhood mothers and 97.69% of Maricopa County mothers abstained from alcohol during pregnancy. Hispanics had the highest percentage of births to mothers who abstained from alcohol; Native Americans had the lowest percentage. Among those of the Garfield Neighborhood, Whites, Hispanics, and African Americans achieved both the HP 2000 and HP 2010 objectives for alcohol abstinence during 1996 to 1999.



Among mothers of both the Garfield Neighborhood and Maricopa County, all age groups reached the HP 2000 objective for alcohol abstinence of 94%. Also, all ages groups in the Garfield Neighborhood, with the exception of mothers 35 to 39 years of age (94.64%), attained the HP 2010 objective for alcohol abstinence of 95%.

See Appendix A, Map 10 for prevalence of alcohol abstinence during pregnancy by census tract.

Section VIII. References

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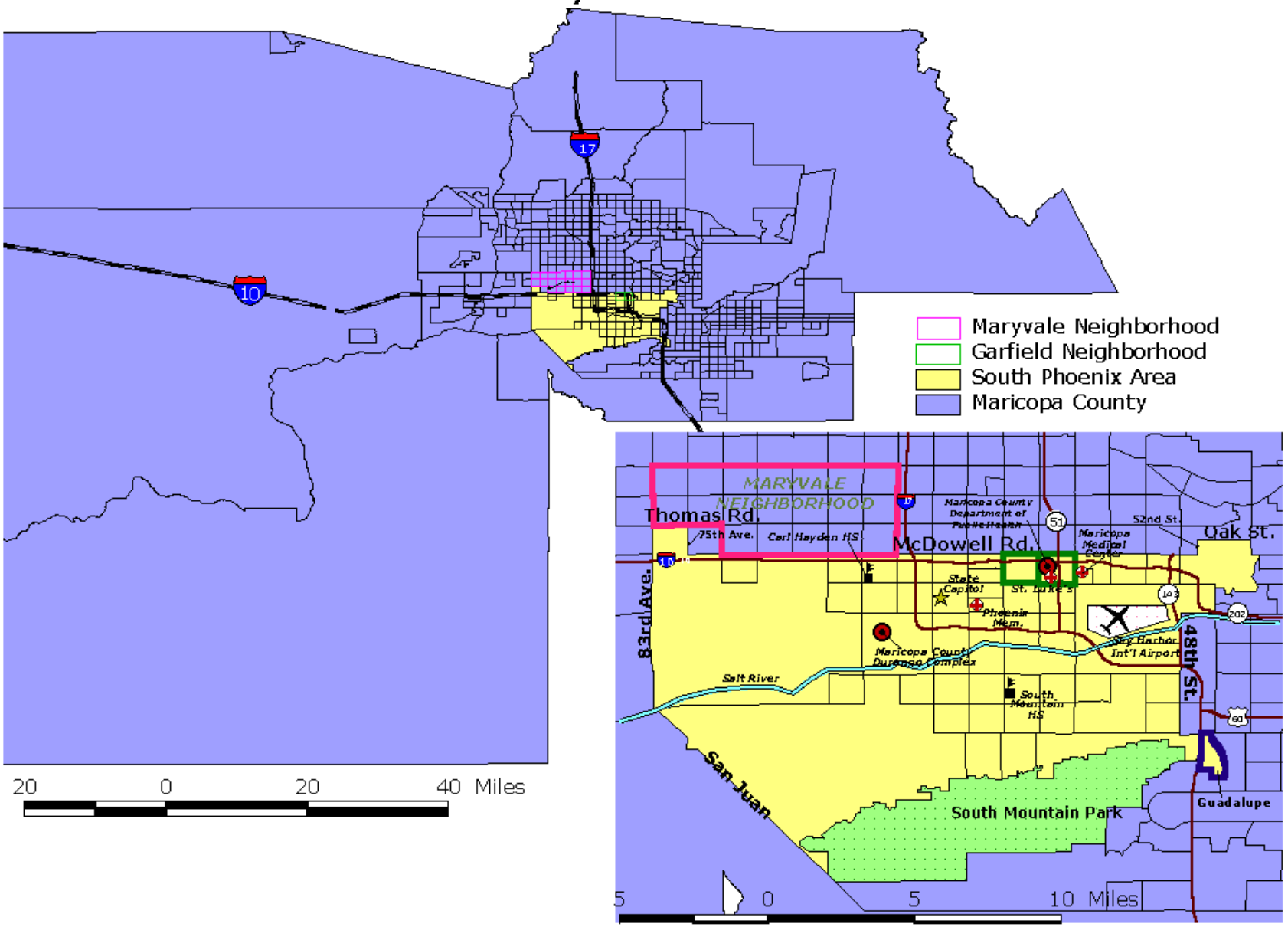
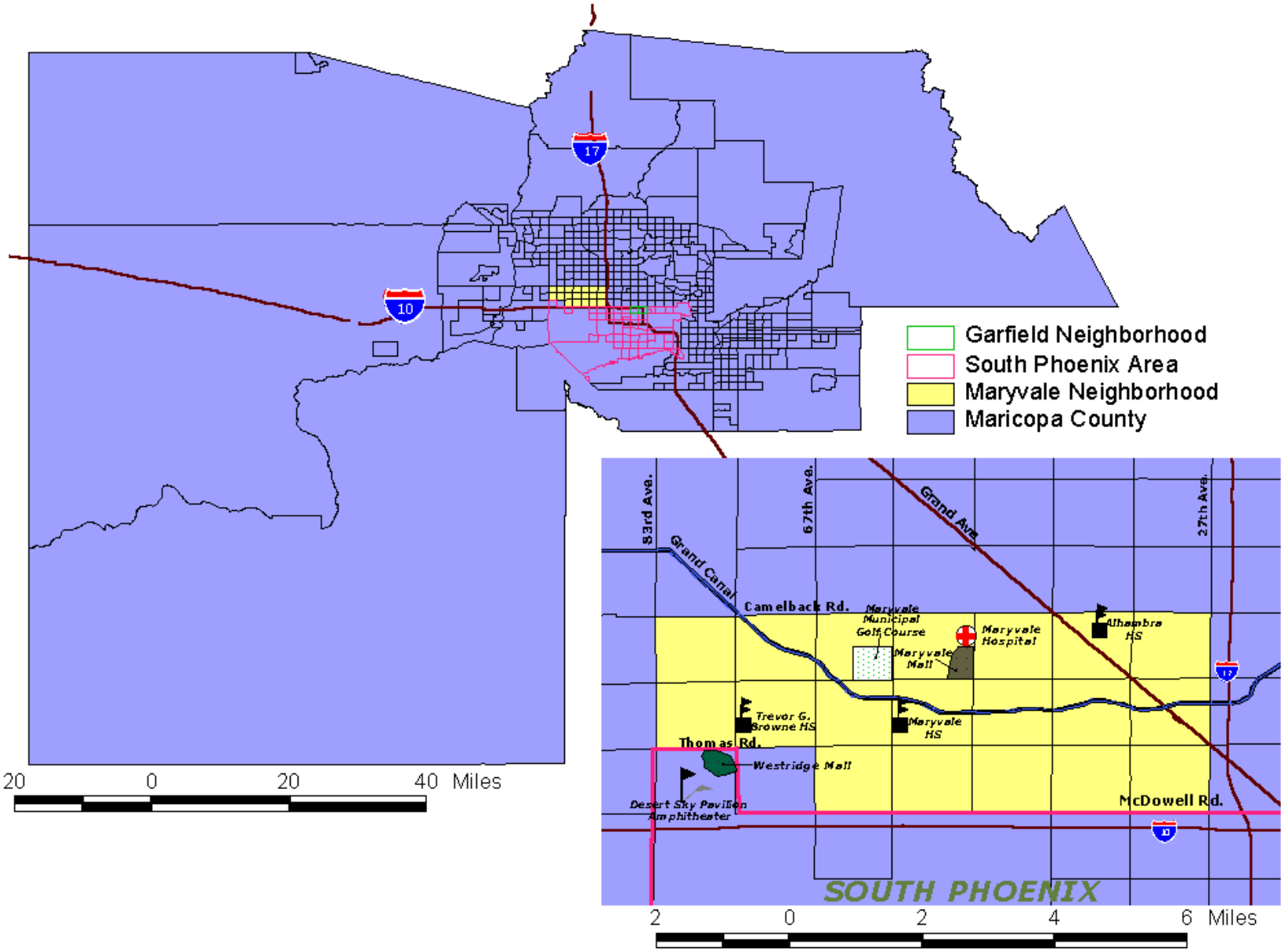
Section IX. Appendices

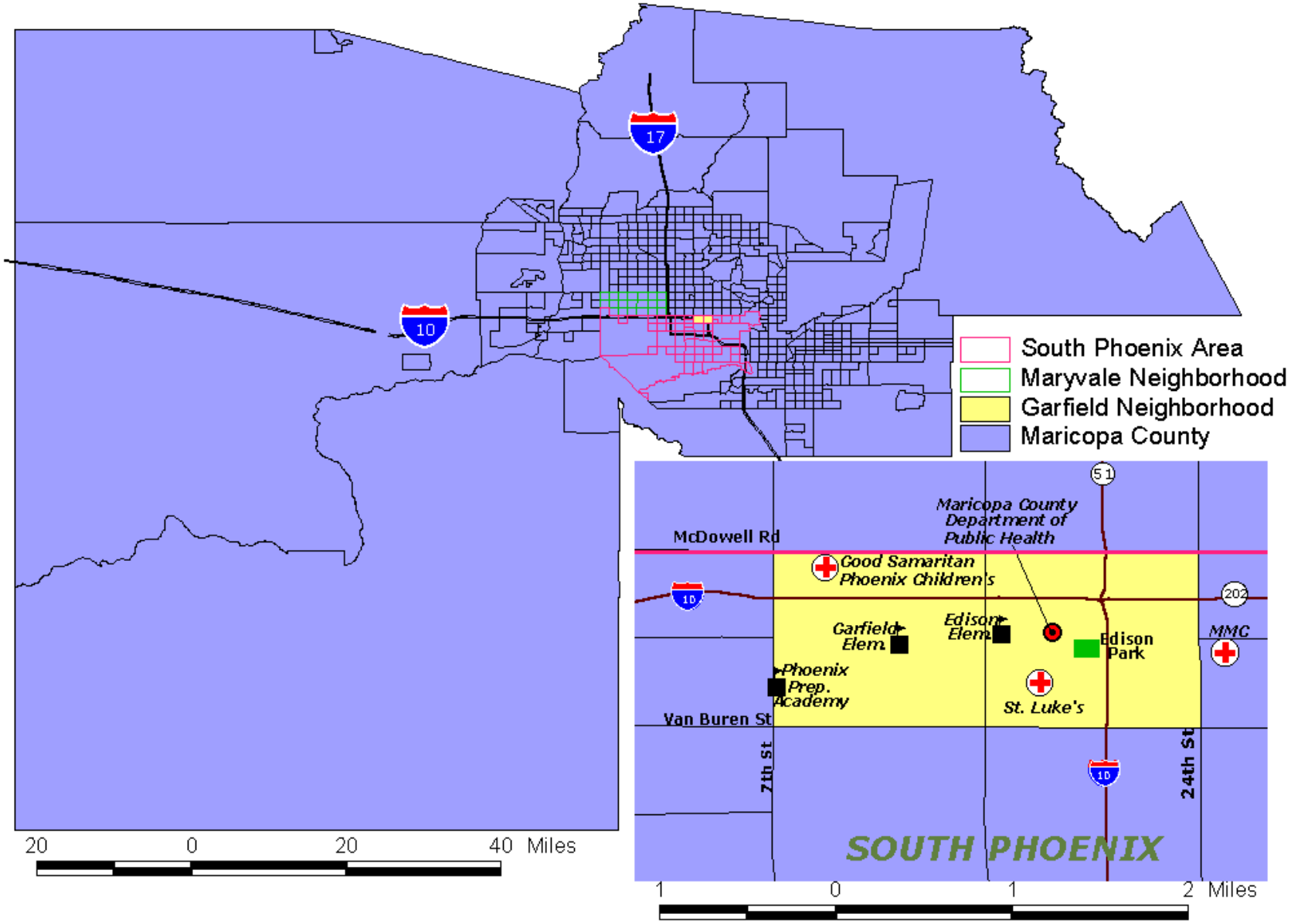
Map 1: South Phoenix Area, Phoenix, Arizona



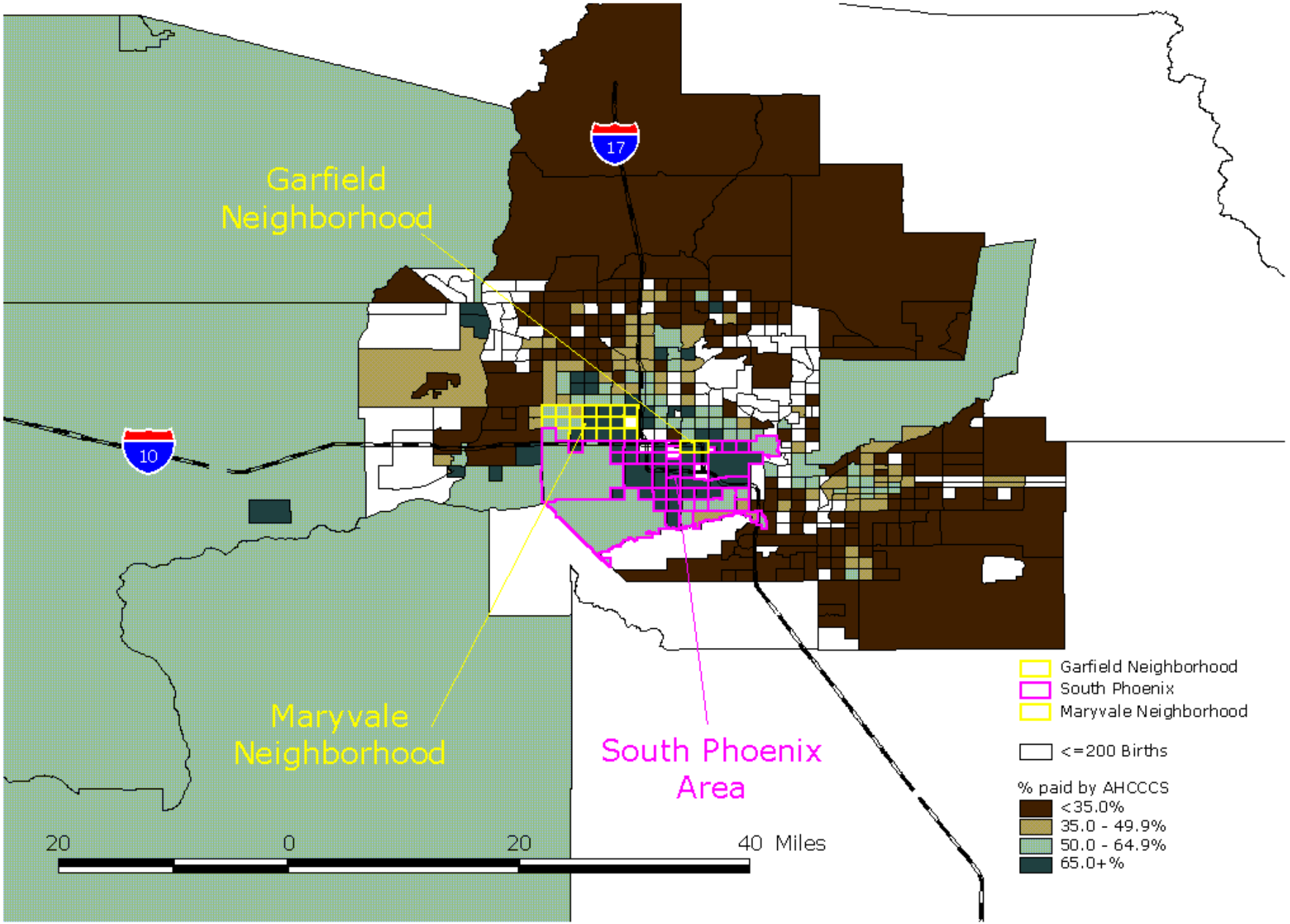
Map 2: Maryvale Neighborhood, Phoenix, Arizona



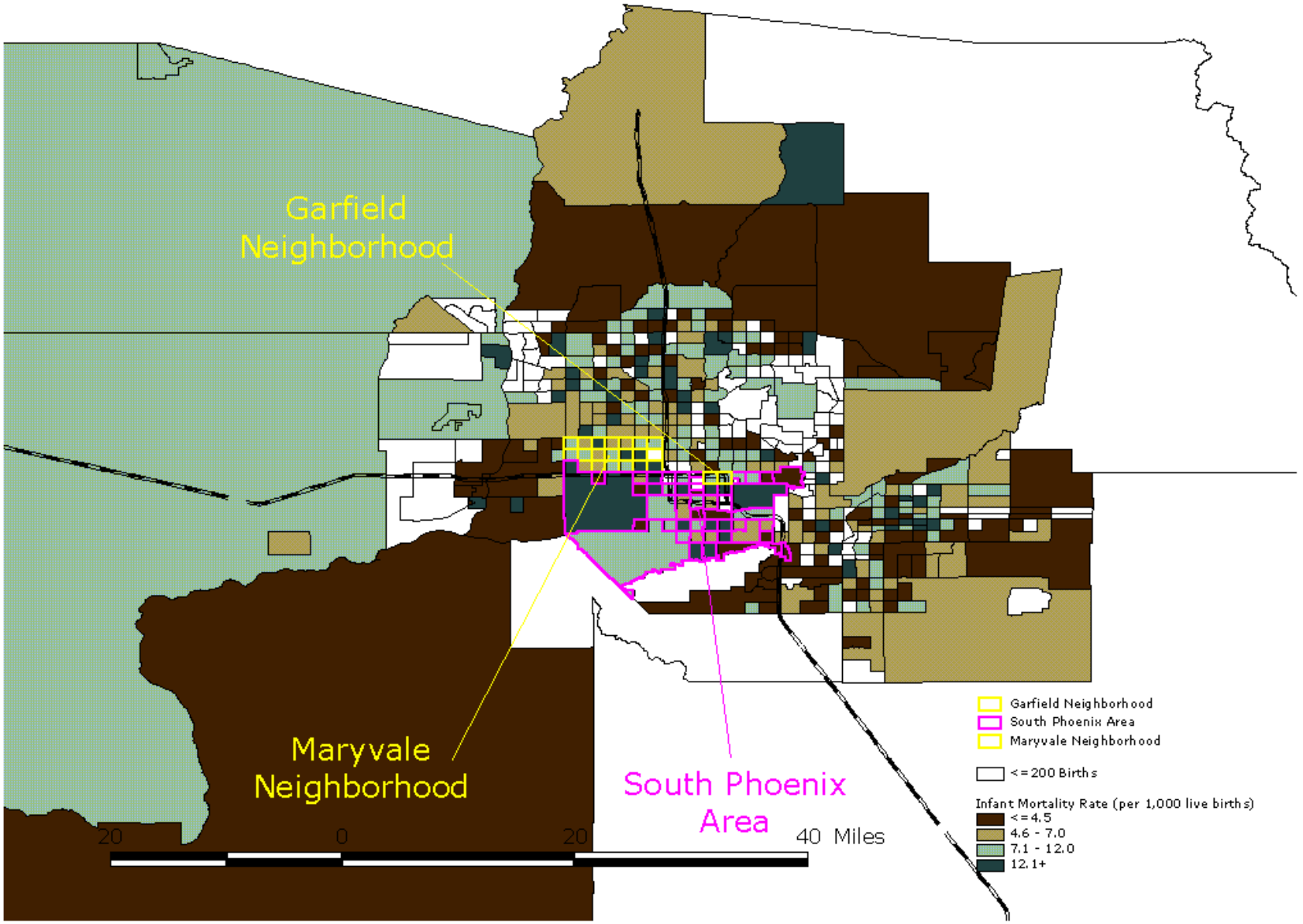
Map 3: Garfield Neighborhood, Phoenix, Arizona



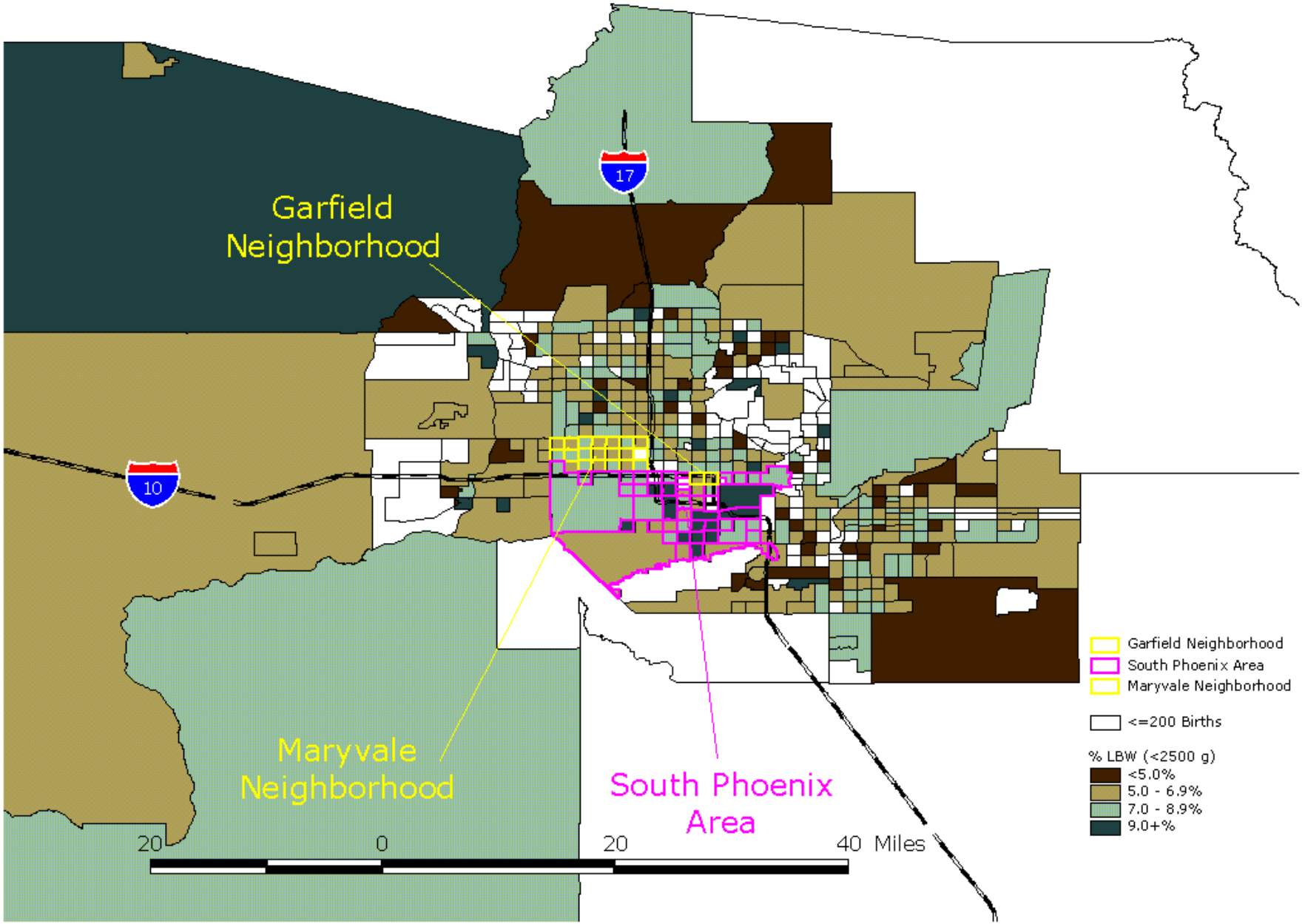
Map 4: Percent of Births Paid for by AHCCCS by Census Tract,
Maricopa County, Arizona, 1996-1999



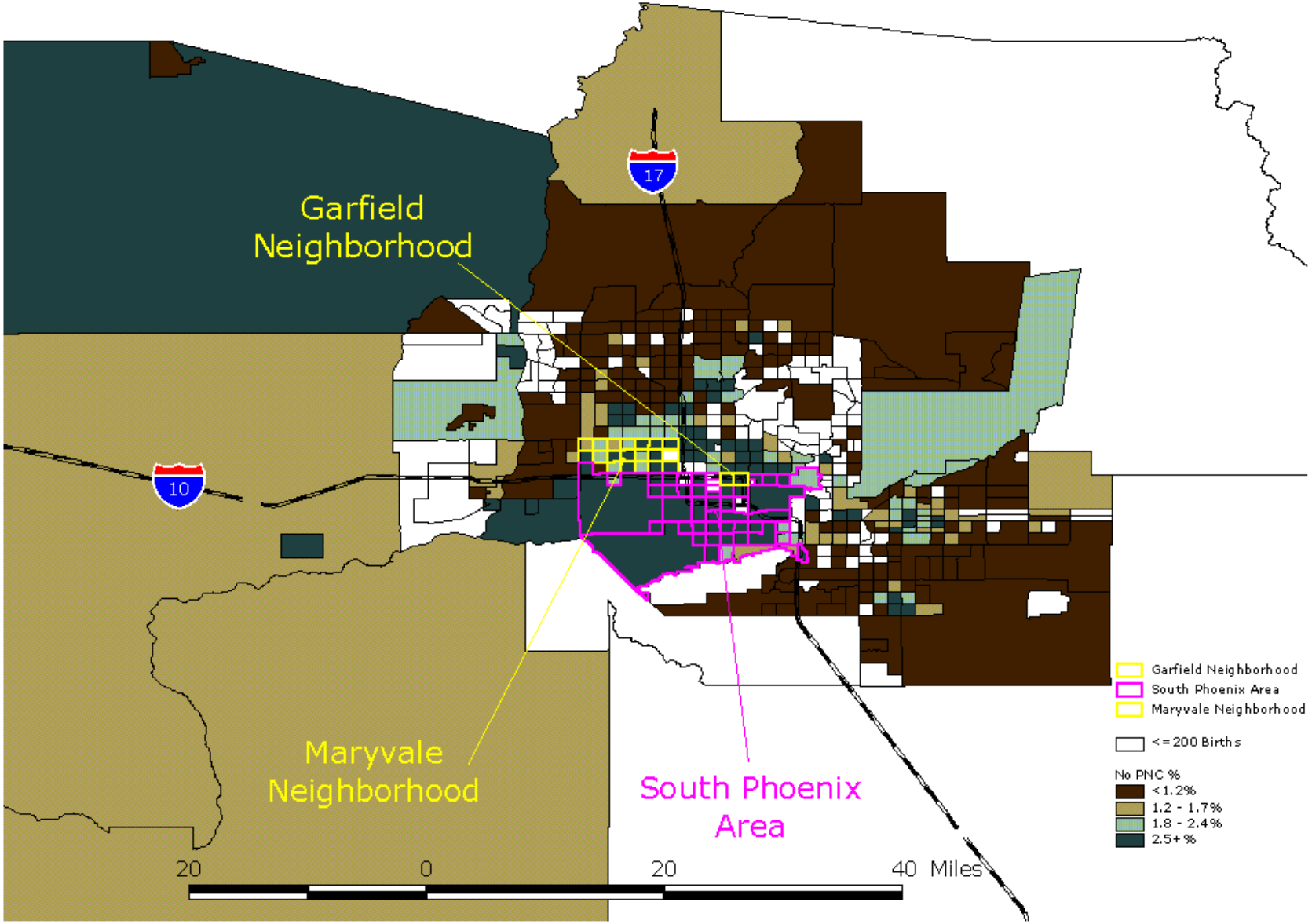
Map 5: Infant Mortality Rate by Census Tract, Maricopa County, Arizona, 1996-1999



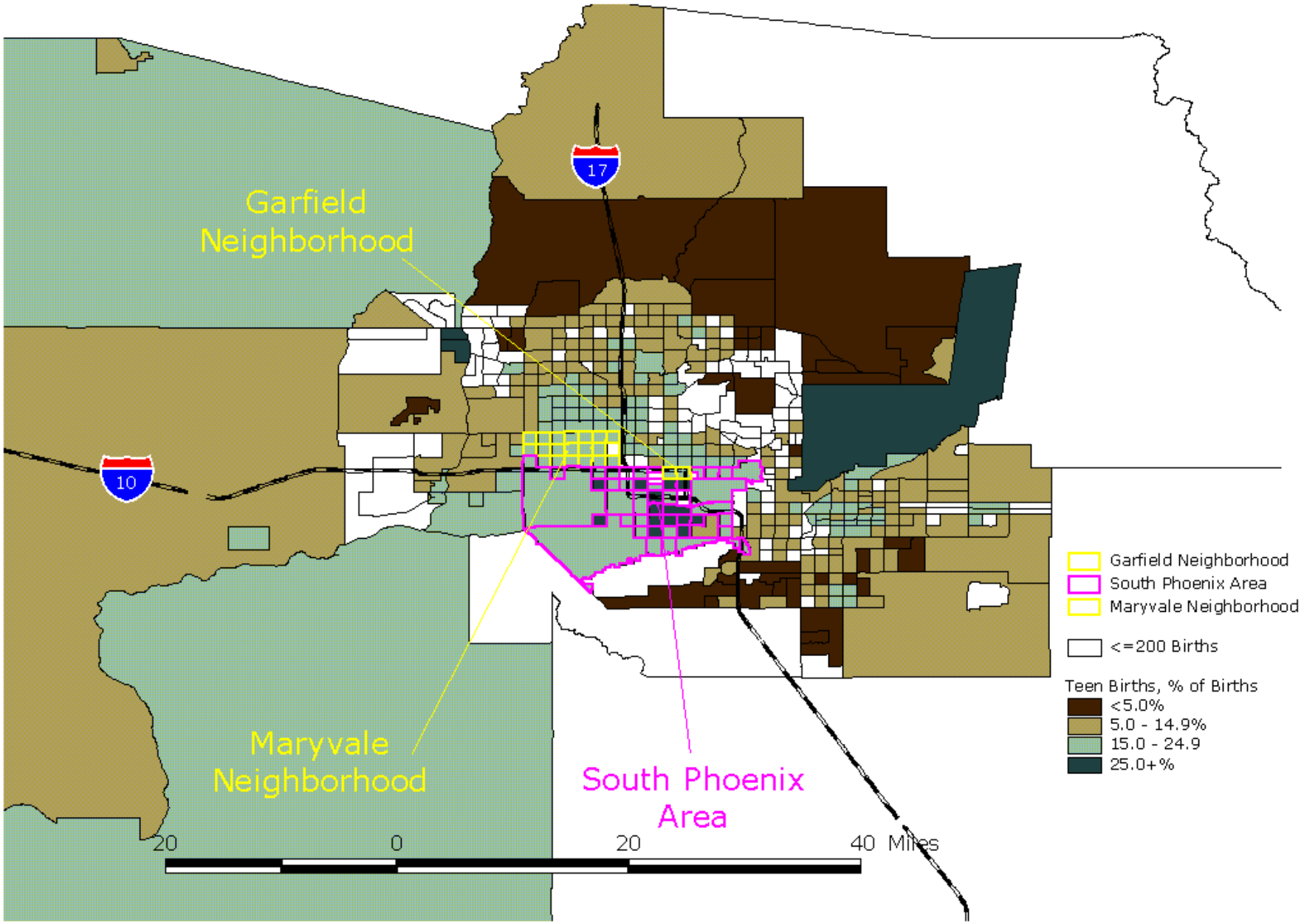
Map 6: Percent of LBW Births (<2,500 g) by Census Tract, Maricopa County, Arizona, 1996-1999



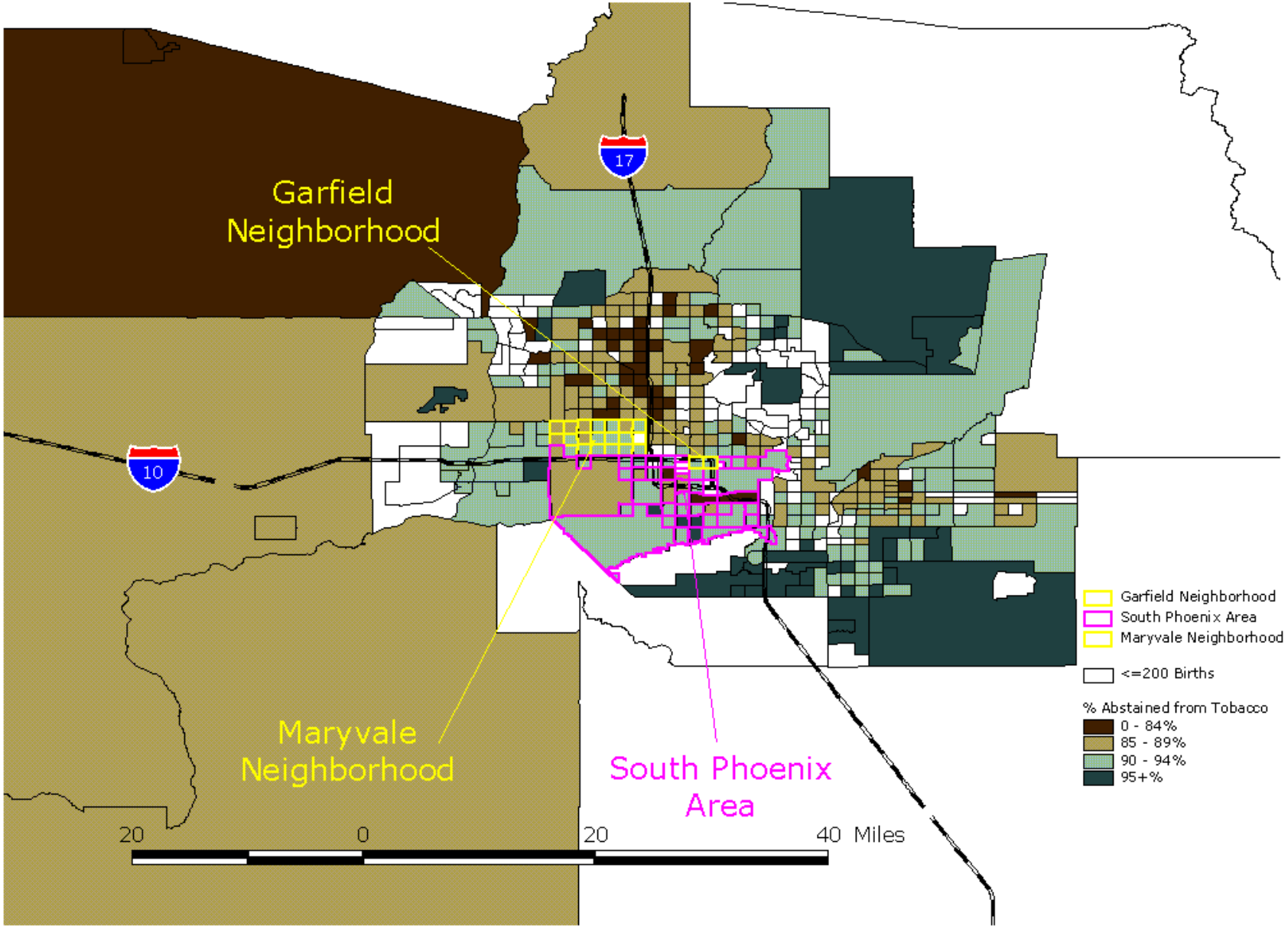
Map 7: Percent of Mothers Receiving No PNC by Census Tract, Maricopa County, Arizona, 1996-1999



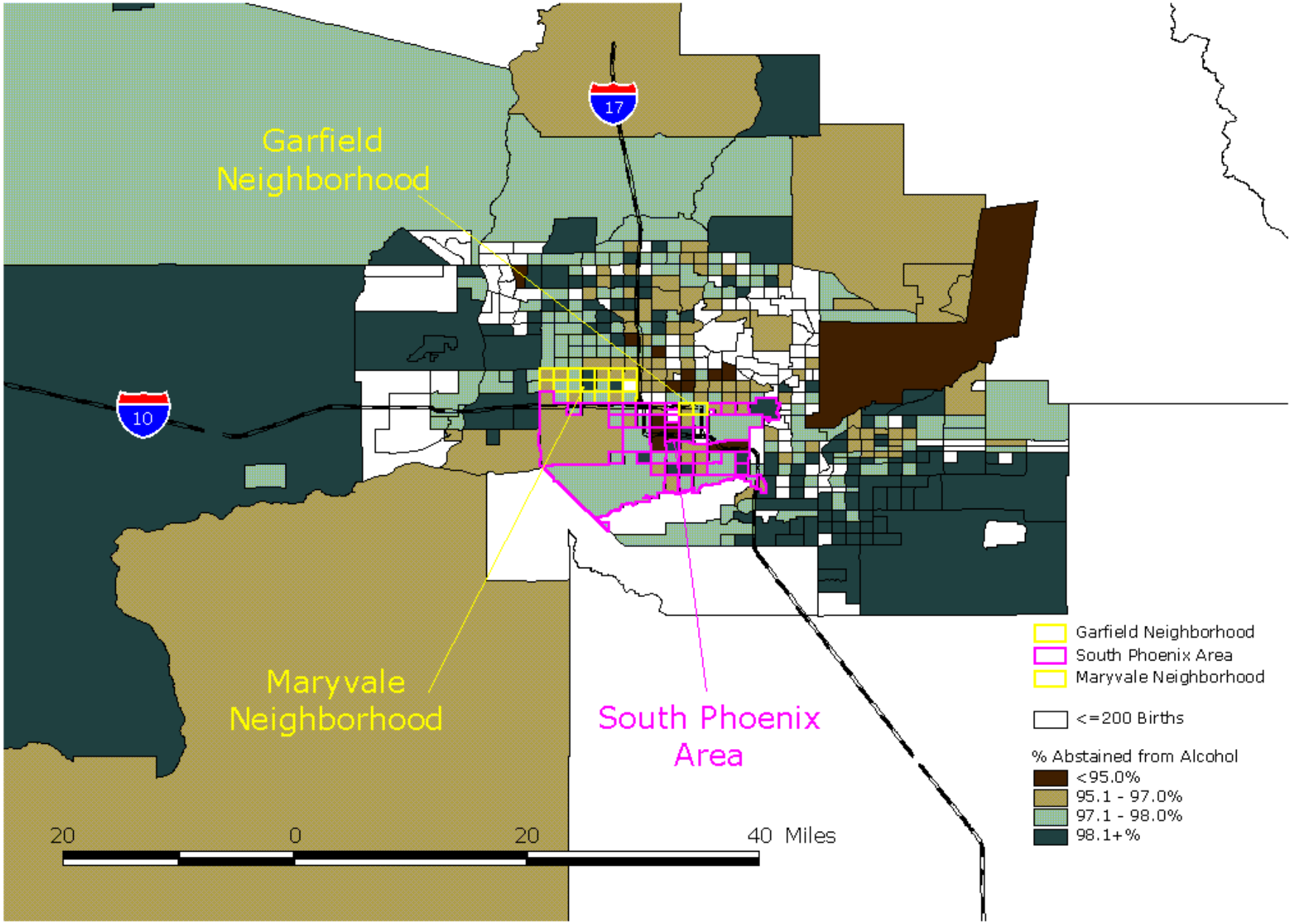
Map 8: Percent of Births to Mothers 19 and Younger by Census Tract, Maricopa County, Arizona, 1996-1999



Map 9: Percent of Mothers Who Abstained from Tobacco by Census Tract, Maricopa County, Arizona, 1996-1999



Map 10: Percent of Mothers Who Abstained from Alcohol by Census Tract, Maricopa County, Arizona, 1996-1999



Inventory of Maricopa County Department of Public Health MCH Activities

Program	Brief Description	Target Population	How Many Served Annually?	IM	LBW	PNC	Teen Birth	CH
Pregnancy Connection 602.506.6339	Uninsured or underinsured women of childbearing age can get help accessing prenatal care. Ongoing case management and education are provided to high-risk pregnant women throughout their pregnancy. The program collaborates with numerous agencies and providers throughout the county to provide access to prenatal care. Transportation is provided if needed.	Pregnant women and teens	651	●	●	●	●	●
Newborn Intensive Care Program 602.506.6782	Home visits are provided to families whose infants were critically ill at birth. Families receive case management services from a nurse for up to two years, depending on the child and family's needs. Assessment, counseling, education, and referrals to community resources are provided.	Infants in neonatal intensive care unit 3 or more days	1,200	●	●		●	●
Parent Support Center 602.506.6339	Parent education classes, in-home parent aide services, and supportive guidance are available for parents to strengthen families, to promote youth development, and to prevent child abuse.	Families at risk for abuse	2,400	●			●	●
Family Planning Clinic 602.506.6635	Well woman health examinations and family planning services are available free or on a low cost basis. Examinations include pap smears, breast exams, and STD screening. Low cost pregnancy testing is available for all women.	Uninsured or underinsured women of child bearing age	2,500	●			●	
Sexually Transmitted Diseases (STD) Clinic 602.506.1678	Confidential testing, treatment and followup services for people with STDs are available for a $10 fee on a walk-in basis. Community educational presentations about STDs and HIV also are available upon request.	At risk men, women and teens	19,000	●	●		●	

Legend
IM=Infant Mortality PNC=Prenatal Care
LBW=Low Birth Weight CH=Child Health

Visit our Web site at www.maricopa.gov

Program	Brief Description	Target Population	How Many Served Annually?	IM	LBW	PNC	Teen Birth	CH
Injury Prevention (SAFE Kids) 602.506.6860	The SAFE KIDS Coalition of Maricopa County works to educate the public about injury prevention for children. Focus is on proper use of car seats, booster seats and bicycle helmets. Presentations available upon request.	Young children and their parents	937 car seats checked for safety 15,000 people received educational materials	●				●
WIC 480.966.3090	The WIC program helps protect the health of high-risk pregnant, postpartum and breast-feeding women, infants and children up to age five. Services include the provision of nutritious foods, educational classes, breast-feeding support, and nutritional counseling and referral services. All services are free, but participants must meet federal eligibility requirements.	At risk pregnant and postpartum women, infants, and children	780,000	●	●	●	●	●
Food Plus 480.966.3090	Provides nutritious foods, nutrition information and referrals to postpartum women and children age one through five, which do not qualify for the WIC Program. Services are also available for individuals 60 years or older. All services are free, but participants must meet federal eligibility requirements.	Postpartum women, young children, and seniors	37,332 women & children 46,092 seniors	●	●			●
Childhood Immunizations Hotlines 602.506.6115 602.506.6865 Spanish	Free immunizations are provided for children, birth through 18 years of age, regardless of their family's financial status. Immunizations are available at 14 sites each month throughout the county. Call the Hotline for locations.	Infants and children	90,000	●		●		●
School-based Dental Screening 602.506.4233	Oral health assessments are conducted to help detect untreated dental problems, refer children to services and provide oral status data for community profiles in Maricopa County. School nurses are asked to become involved in assisting students with referrals for dental treatment services.	K, 1st, 2nd, 3rd grade students from selected schools	2,000					●

Program	Brief Description	Target Population	How Many Served Annually?	IM	LBW	PNC	Teen Birth	CH
Dental Sealant 602.506.6946	Dental examinations are provided in a school based setting. Dental sealants are provided to uninsured students for the prevention of tooth decay. School nurses are asked to assist students with referrals for other dental treatment services.	2nd, 6th grade students	5,000					●
Community Health Nursing 602.506.6767	Conducts disease surveillance and investigation for congenital syphilis, vaccine-preventable disease outbreaks, perinatal Hepatitis B, and food-borne illnesses such as Hepatitis A. Education on disease prevention and health promotion is provided to child care centers. Provider immunization levels are assessed and education on childhood vaccines is provided.	Primarily women and children	Congenital syphillis 38 families	●	●	●		●
AIDS, Teens and Choices (ATAC) 602.506.6851	This eight-session program provides an interactive, innovative and comprehensive approach to HIV prevention. The youth learn decision making and communication skills through a variety of fun-filled activities.	Teens	6,000					●
Maricopa County Tobacco Use Prevention Program (MACTUPP) 602.506.6359	This program is administered by the Office of Health Promotion and Education and serves Maricopa County communities with tobacco prevention and cessation through community-based coalitions.	All county residents	286,000	●	●			●
P.L.A.Y. Promoting Lifetime Activity for Youth 602.506.6850	This teacher-directed program prevents decreases in daily activity levels to help children to remain active throughout their lives.	4th-8th grade students	5,000					●
Community Development 602.372.1441	This program works with community advisory groups and coalitions to improve maternal and child health outcomes. An annual assessment of Maricopa County is conducted to target future Maternal/Child Health services and community activities.	MCH professionals	N/A	●	●	●	●	●

Legend
IM=Infant Mortality PNC=Prenatal Care
LBW=Low Birth Weight CH=Child Health

Visit our Web site at www.maricopa.gov

Request Form for Data Information

Maricopa County Department of Public Health, Division of Epidemiology and Data Services
1825 E. Roosevelt Street, Phoenix, AZ 85006
Phone (602) 506-6825 FAX (602) 506-6434

Office Use Only			
Distribution:	Mail _____	Fax _____	Pick-up _____
Check Completed:	Mailed _____	Faxed _____	Picked-up _____

Date of Request: ____/____/____ Date Needed: (Allow minimum of 2 weeks): ____/____/____

Requester Name: _____

Address:_____ Phone:_____

_____ Fax:_____

Requester Affiliation: _____ Profit Org ☐ Non-Profit Org ☐

County Agency ☐ Student/Faculty ☐ State Agency ☐ Other ☐

Purpose of Information: _____

Please request only information you need. Unusually lengthy requests require much more staff and computer time and will result in greater preparation time and, possibly, client charges. Note that only data for Maricopa County are available from the county.

MISCELLANEOUS NOTES AND INSTRUCTIONS:

FOR OFFICE USE ONLY:

Completed by: _____ Date: ____/____/____

Time: _____

Completed by: _____ Date: ____/____/____

Time: _____

NATALITY (BIRTH) DATA REQUESTED

5. Time period(s) (1988 on available) (Years and/or Months): _____

6. Area(s) (must be census tracts, Health Status Areas, or cities): _____

7. All Births: ☐ Single Births Only: ☐ Multiple Births Only: ☐

8. Data Available (check only those needed):

Mother's age: ☐ Adolescent age group: ☐ Race/ethnicity: ☐ Education: ☐

Marital status: ☐ Child's sex: ☐ Birth weight: ☐ No. of prenatal visits: ☐

Trimester care began: ☐ Institution of birth: ☐ Gestational age: ☐

MORTALITY (DEATH) DATA REQUESTED

1. Time period(s) (1988 on available) (Years and/or Months): _____

2. Area(s) (must be census tracts, Health Status Areas, or cities): _____

3. 19 Main Causes of Death: ☐ OR: Specific Cause(s): _____

_____

_____

4. Data Available (check only those needed):

Age: ☐ Race/ethnicity: ☐ Sex: ☐ Marital status: ☐ Education level: ☐

Infant mortality age components: ☐ Resident city at death: ☐

OTHER DATA/INFORMATION

1. Census data by year and age/race/sex for Health Status Areas only:
   Time period(s) (years only): _____
   Health Status Area(s): _____
   ** Other census data can be obtained from the Arizona State Department of Economic Security, Population Statistics unit, or from the ASU or County library. (Please note that additional census data are available for Department of Public Health personnel.)
2. Specialized data are available from other databases. Please contact our office to discuss these data:
   a. Hospital discharge data
   b. Behavioral Risk Factor Survey (BRFS)

2001 MCH Maricopa County Needs Assessment
Users Survey

We want this document to be useful to you. Your reaction to this document is important to us. Please respond to the following questions within 30 days of receipt. Provide additional comments if you wish. After completion of this survey, remove this page from the book and FAX to Rose Howe, Community Development Manager at (602) 506-6444. Thank You.

1. Have you had a chance to use this Needs Assessment? ❑ Yes ❑ No
   If yes, what have you used it for? Please be as specific as possible.

2. Would you like to receive this document on an annual basis? ❑ Yes ❑ No

3. Would you be willing to pay printing costs to receive this document? ($25) ❑ Yes ❑ No

4. Which aspect of the needs assessment did you find most helpful?

5. Which aspect did you find least helpful?

6. Is there a colleague you feel would benefit from receiving this needs assessment? ❑ Yes ❑ No
   Please provide name and address:

7. What recommendations would you make to improve this document?